

特別講演

- 2 S 01 大強度加速器が拓く先端科学 (高エネ研) 永宮正治
- 2 S 02 Superheavy Elements with the Berkeley Gas-Filled Separator
(米国・Lawrence Berkeley Laboratory) K.E. Gregorich

招待講演

- 1 I 01 Radioactive Disequilibrium of Uranium and Thorium Nuclide Series in Hot Spring and River Water from Peitou Hot Spring Basin in Taipei
(台湾・国立清華大学) 朱鐵吉
- 1 I 02 Positronium as a Probe of Small Free Volumes
(ポーランド・Maria Curie-Skłodowska University) T. Goworek
- 2 I 01 Radiopharmaceutical Chemistry in Peking University (PKU)
(中国・北京大学) 王祥云
- 2 I 02 Modern Nuclear Analytical Techniques and Their Applications in China
(中国・中国科学院高能物理研究所) 柴之芳
- 2 I 03 Century of Radiochemistry: History and Future
(ロシア・Russian Academy of Sciences) B.F. Myasoedov
- 3 I 01 Radiochemistry in India - An Overview -
(インド・Bhabha Atomic Research Centre) S.B. Manohar

依頼講演

- 1 R 01 パイ中間子原子の生成と挙動 (京大原子炉) 篠原 厚
- 1 R 02 地球化学・環境化学における中性子放射化分析の先端的利用
(根津化研・武蔵大人文) 葉袋佳孝
- 2 R 01 日本の核化学研究紹介 (新潟大理) 工藤久昭
- 3 R 01 環境放射能研究の現状と未来 (九大院理) 百島則幸

プログラム

一般講演15分(講演12分、討論3分)

○印は登壇者

10月13日(水)

S 会場 (300 室)

[依頼講演] 座長 酒井陽一 (9:30~10:10)

1 R 01 パイ中間子原子の生成と挙動
(京大原子炉) 篠原厚

[招待講演] 座長 小村和久 (10:10~10:50)

1 I 01 Radioactive Disequilibrium of Uranium and Thorium Nuclide Series in Hot Spring and River Water from Peitou Hot Spring Basin in Taipei
(台湾・国立清華大学) 朱鐵吉

[依頼講演] 座長 松尾基之 (13:30~14:10)

1 R 02 地球化学・環境化学における中性子放射化分析の先端的利用
(根津化研・武蔵大人文) 薬袋佳孝

[招待講演] 座長 鈴木健訓 (14:10~14:50)

1 I 02 Positronium as a Probe of Small Free Volumes
(ポーランド・Maria Curie-Skłodowska University) Tomasz Goworek

A 会場 (303 室)

[核特性]

座長 大槻 勤 (11:00~12:00)

1 A 01 中性子不足アメリシウム核種の壊変特性

(原研先端研¹・都立大院理²・名大院工³・原研物質科学⁴・広島大院工⁵・新潟大院自然⁶) ○阪間稔^{1,2}・塚田和明¹・浅井雅人¹・市川進一¹・大浦泰嗣²・西中一朗¹・羽場宏光¹・後藤真一^{1,6}・永目諭一郎¹・柴田理尋³・河出清³・長明彦⁴・小島康明⁵・海老原充²・中原弘道²

1 A 02 中性子過剰希土類核の崩壊核分光

(原研・名古屋大学¹・東京都立大学²・広島大学³) ○市川進一・浅井雅人・塚田和明・長明彦・羽場宏光・西中一朗・永目諭一郎・小島康明³・柴田理尋¹・大浦泰嗣²・阪間稔²・河出清¹

1 A 03 104番元素ラザホージウムのイオン交換挙動

(原研基礎センター・GSI¹・PSI²・Univ. Bern³・ITU⁴・Univ. Mainz⁵・TU Dresden⁶) ○塚田和明・浅井雅人・W. Bröchle¹・R. Eichler²・H.W. Gäggeler^{2,3}・M. Gärtner³・J.P. Glatz⁴・A. Grund²・E. Jäger¹・D.T. Jost²・U. Kirbach⁶・J.V. Kratz⁵・A. Kronenberg⁵・Z. Li¹・永目諭一郎・A. Näher⁵・西中一朗・阪間稔・M. Schädel¹・B. Schausten¹・D. Schumann⁶・E. Shimpf¹・E. Strub⁵・P. Thörle⁵・A. Türler²・S. Zauner⁵

1 A 04 分裂する原子核の変形度の分類

(都立大理・原研¹・東大理²・新潟大理³) ○趙宇亮・西中一朗¹・永目諭一郎¹・谷川勝至²・末木啓介・塚田和明¹・市川進一¹・後藤真一³・大浦泰嗣・中原弘道

< 昼 休 み > (12:00~13:30)

< 招待講演・依頼講演 : S 会場 > (13:30~14:50)

[核反応]

座長 三浦太一 (15:00~15:45)

- 1 A 05 重核の核分裂特性
(原研・都立大院理¹・東北大核理研²) ○永目諭一郎・趙宇亮¹・西中一朗・大槻勤²・塚田和明・市川進一・中原弘道¹
- 1 A 06 ^{242m}Amの熱中性子誘起核分裂の放射化学的研究
(阪大院理・京大炉¹・追手門大経²・阪大RIセ³) 真田潤・荒木宏一・小林捷平¹・篠原厚¹・高橋成人・高宮幸一¹・馬場宏・藤原一郎²・横山明彦・○斎藤直³
- 1 A 07 核反跳法による中高エネルギー光核破碎反応の系統的研究
(原研・金沢大院自然科学¹・金沢大理²・金沢大医³・都立大院理⁴・京大原子炉⁵・四日市大環境情報⁶・追手門学院大経⁷) ○羽場宏光・松村宏¹・山下万寿美¹・坂本浩^{1,2}・鷺山幸信³・大浦泰嗣⁴・柴田誠一⁵・古川路明⁶・藤原一郎⁷

座長 市川進一 (15:45~16:30)

- 1 A 08 高エネルギー重イオンによるターゲットフラグメンテーションの反応機構 — 初期生成核の推定
(阪大院理・阪大RIセ¹・放医研²・京大炉³) ○横山明彦・森本真哉・荒木宏一・真田潤・斎藤直¹・馬場宏¹・柴田貞夫²・篠原厚³・大久保嘉高³
- 1 A 09 核分裂生成物と dpm の気相反応
(新潟大理) ○木村進一・金子哲也・平井利幸・工藤久昭
- 1 A 10 $E_n < 6.5\text{MeV}$ における ⁶³Cu (n,p)⁶³Ni の励起関数の測定
(京大原子炉・高エネ機構放射線科学センター¹・国立歴史民族博物館²・理研³・東大 RI セ⁴・東北大院工⁵) ○高宮幸一・篠原厚・柴田誠一・柴田徳思¹・伊藤寛¹・今村峯雄²・上菘義朋³・野川憲夫⁴・馬場護⁵・岩崎信⁵・松山成男⁵

[同位体化学]

座長 荒殿保幸 (16:30~17:00)

- 1 A 11 レーザー誘起光音響法を用いる酸化鉄コロイドの光吸収および光散乱断面積同時測定
(東北大院理) ○オ木康・出蔵剛・関根勉・木野康志・工藤博司
- 1 A 12 KYCARペプチドを配位子とするレニウム錯体の *anti-syn* 構造間の異性化反応機構
(東北大院理) ○高山努・鈴木圭介・関根勉・工藤博司

B 会場 (405 室)

[中間子・ポジトロン]

座長 末木啓介 (11:00~12:00)

- 1 B 01 ミュオン分子イオン ($tt\mu$)⁺ の構造と分子内核融合率
(東北大院理) ○柴田裕樹・木野康志・工藤博司
- 1 B 02 (H₂Mu)⁺ 分子の構造および遷移確率の精密計算
(東北大院理・原研¹) ○戸谷由起雄・木野康志・工藤博司・横山啓一¹
- 1 B 03 アンモニア中の正ミュオンの挙動
(東大理・高エネ研¹) ○久保謙哉・西山樟生¹

- 1 B 04 $H_2 + D_2$ 混合気体系におけるHからDへのパイ中間子転移過程
 (京大原子炉・高エネ研¹・阪大院理²・新潟大理³・金沢大理⁴・阪大RIセ⁵・四日市大環境情報⁶)
 ○篠原厚・三浦太一¹・横山明彦²・高宮幸一・金子哲也³・荒木宏一²・真田潤²・浜島靖典⁴・斎藤直⁵・
 馬場宏⁵・古川路明⁶

< 昼 休 み > (12:00~13:30)

< 招待講演・依頼講演 : S 会場 > (13:30~14:50)

座長 久保謙哉 (15:00~15:30)

- 1 B 05 陽電子消滅ドップラー幅相関測定法の有機金属錯体への適用
 (東大原総セ・高エネ研¹) ○伊藤泰男・鈴木健訓¹
- 1 B 06 Positronium Trapped in Free Volume Holes - Study of the Formation in Extreme Cases
 (高エネ研・総研大¹・東大原総セ²) ○Tomasz Goworek・鈴木健訓・近藤健次郎・濱田栄作¹・伊藤泰男²

[メスバウアー分光]

座長 高橋正 (15:30~16:15)

- 1 B 07 光異性化配位子をもつスピントスオーバー鉄(III)錯体
 (東大工・神奈川科学技術アカデミー¹・理研²・九大理³) ○栄長泰明・速水真也¹・小林義男²・前田米蔵³・
 藤嶋昭・佐藤治¹
- 1 B 08 スピントスオーバー鉄(III)錯体のLIESST現象
 (KAST・東大院工¹) ○速水真也・栄長泰明¹・藤嶋昭¹・佐藤治
- 1 B 09 マクロ環配位子を有するLIESST鉄(II)錯体の新展開
 (KAST・東大院工¹・東理大²・工芸大³) ○速水真也・栄長泰明¹・石川由美子²・甲斐雅裕³・藤嶋昭¹・
 佐藤治

座長 野村貴美 (16:15~17:00)

- 1 B 10 ソーダ石灰ガラスを用いた有害重金属の固定
 (九大理・宇部高専物質工¹・九大特殊排水²・福大工³) 西田哲明・○瀬戸基司・久富木志郎¹・宮地治²・
 有賀俊文²・松本泰國³
- 1 B 11 ⁵⁷Feメスバウアー、XRDおよびDTAを用いたアルミン酸塩ガラスの結晶化挙動
 (九大理・宇部高専物質工¹・お茶大理²) ○西田哲明・五島健太・久富木志郎¹・玉置豊美²
- 1 B 12 アルミン酸塩ガラスおよびガラスセラミックスの¹⁵¹Euメスバウアースペクトル
 (九大理・ハンガリー エトボシュ大核化学¹) ○西田哲明・Z. Klencsár¹・E. Kuzmann¹・A. Vértes¹

C 会場 (406 室)

[放射化分析]

座長 浜島靖典 (11:00~12:00)

- 1 C 01 成長期における亜鉛の欠乏が他の微量元素の挙動に与える影響 (2)
 (静岡大理) ○吉田努・釜谷恵実・若狭仁・大山拓也・岩間基訓・矢永誠人・野口基子・大森巍
- 1 C 02 環境指標としての地衣類
 (筑波大理工・国立科学博物館¹・筑波大化²) ○齋藤陽子・柏谷博之¹・池田龍一²・関李紀²
- 1 C 03 大気浮遊粒子の熱中性子放射化分析 - Cl/Na および Br/Naの季節変動 -
 (立教大理・立教大原研¹) ○泉水義大・戸村健児¹・佐々木研一

- 1 C 04 光量子及び中性子放射化法によるマウス臓器中の無機元素の定量
(金沢大院・金沢大医¹・金沢大理²・高エネ研³) ○広瀬由紀子・天野良平¹・鷲山幸信¹・羽場宏光・坂本浩²・榎本和義³

< 昼 休 み > (12:00~13:30)

< 招待講演・依頼講演 : S 会場 > (13:30~14:50)

座長 矢永誠人 (15:00~16:00)

- 1 C 05 ゲルマニウム検出器系の分析化学への応用
(原研) ○初川雄一・早川岳人・藤暢輔・篠原伸夫・大島真澄
- 1 C 06 ¹¹Cの迅速分離、検出法の開発と放射化分析への応用
(高エネ研・東北大核理研¹・NTTホトニクス研²) ○榎本和義・大槻勤¹・伊藤寛・鹿野弘二²
- 1 C 07 k₀-中性子即発γ線分析法による Typical Japanese Diet 標準物質の多元素定量
(原研東海) ○松江秀明・米沢仲四郎
- 1 C 08 単結晶ケイ素中に熱拡散したホウ素の即発γ線線形
(東大理・大同工大¹・原研東海²) ○久保謙哉・酒井陽一¹・神保睦子¹・米沢仲四郎²・松江秀明²

座長 鹿野弘二 (16:00~17:00)

- 1 C 09 放射化学的中性子放射化分析法による高純度ケイ素の元素分析
(都立大院理・金沢大LLRL¹) ○永峯隆行・大浦泰嗣・海老原充・中原弘道・小村和久¹
- 1 C 10 光量子放射化分析法と中性子放射化分析法を併用した隕石の分析
(都立大院理・東北大核理研¹) ○瀬戸口美奈・大浦泰嗣・海老原充・中原弘道・大槻勤¹
- 1 C 11 Determination of Halogens in Meteorite and Geological Samples by Radiochemical Photon Activation Analysis
(都立大院理・東北大核理研¹) ○Sk.A. Latif・大浦泰嗣・海老原充・中原弘道・大槻勤¹
- 1 C 12 中性子及び光量子放射化分析による異種産地の食用スパイス及び豆の微量元素定量
(原研・金沢大理¹・パキスタン原研²) ○宮本ユタカ・坂本浩¹・Jamshed. H. Zaidi²・中西孝¹

10月14日(木)

S会場 (300 室)

[依頼講演] 座長 斎藤直 (9:00~9:40)

- 2 R 01 日本の核化学研究紹介
(新潟大理) 工藤久昭

[招待講演] 座長 遠藤和豊 (9:40~10:20)

- 2 I 01 Radiopharmaceutical Chemistry in Peking University (PKU)
(中国・北京大学) 王祥云

[招待講演] 座長 海老原充 (14:40~15:20)

- 2 I 02 Modern Nuclear Analytical Techniques and Their Applications in China
(中国・中国科学院高能物理研究所) 柴之芳

[招待講演] 座長 工藤博司 (15:20~16:00)

2 I 03 Century of Radiochemistry : History and Future
(ロシア・Russian Academy of Sciences) B.F. Myasoedov

[特別講演] 座長 坂本浩 (16:10~17:00)

2 S 01 大強度加速器が拓く先端科学
(高エネ研) 永宮正治

[特別講演] 座長 中原弘道 (17:00~17:50)

2 S 02 Superheavy Elements with the Berkeley Gas-Filled Separator
(米国・Lawrence Berkeley Laboratory) K.E. Gregorich

A 会場 (303 室)

[同位体化学]

座長 初川雄一 (10:30~11:15)

- 2 A 01 放射化学的手法を用いた4族、5族金属を内包したフラーレンに関する研究
(都立大院理) ○秋山和彦・末木啓介・兒玉健・菊地耕一・中原弘道・片田元己
- 2 A 02 反跳を利用した¹¹Cおよび¹³N標識多環芳香族化合物の製造
(高エネ研・東北大核理研¹・NTTホトニクス研²) ○伊藤寛・大槻勤¹・榎本和義・鹿野弘二²
- 2 A 03 亜鉛欠乏マウスにおける微量金属の取り込み
(静岡大理・理研¹) ○大山拓也・吉田努・岩間基訓・矢永誠人・野口基子・大森巍・蛭沼利江子¹・榎本秀一¹

[アクチノイド化学]

座長 臼田重和 (11:15~12:00)

- 2 A 04 TBPを含む超臨界CO₂と硝酸水溶液間のウラン(VI)の分配平衡
(原研) ○目黒義弘・吉田善行・磯修一
- 2 A 05 塩酸-メタノール混合系におけるユウロピウム(III)及びキュリウム(III)の陽イオン交換挙動と水和状態の相関
(静岡大・原研¹) ○有阪真・加藤義春¹・木村貴海¹・菅沼英夫・吉田善行¹
- 2 A 06 古い²⁵²Cf中性子線源からの²⁴⁸Cmの分離 (1)
(新潟大理・東北大金材研¹) ○加治大哉・金子哲也・工藤久昭・原光雄¹・鈴木吉光¹・渡部信¹・三頭聰明¹

< 昼 休 み > (12:00~13:30)

[ルミネッセンス]

座長 玉木洋一 (13:30~14:30)

- 2 A 07 放射線照射石英中の様々な欠陥とTL特性との関係
(新潟大院自・京大原子炉¹・新潟大理²) ○藤田博喜・長谷博友¹・橋本哲夫²
- 2 A 08 焼成考古遺物からの放射線誘起ルミネッセンス現象の被熱温度と産地依存性
(新潟大院自然・新潟大理¹) ○西山笑子・柳川裕次¹・橋本哲夫¹
- 2 A 09 液体シンチレーション計数/パルス時間間隔解析法による微量天然放射性核種の定量とその応用
(新潟大院自然・新潟大理¹) ○小松康子・斎藤由絵¹・橋本哲夫¹
- 2 A 10 石英粒子の赤色熱ルミネッセンス(RTL)における粒径依存性
(新潟大院自然・新潟大理¹) ○安田賢哉・橋本哲夫¹

B 会場 (405 室)

[メスバウアー分光]

座長 飯島誠一郎 (10:30~11:15)

- 2 B 01 M-Sb (M = Na, K) 系金属間化合物の ^{121}Sb メスバウアースペクトル
(東邦大理) ○高橋正・竹田満洲雄
- 2 B 02 $\text{NH}_4[\text{NpO}_2(\text{NO}_3)_3]$ の ^{237}Np メスバウアースペクトルと結晶構造
(東邦大理¹・原研²) ○王軍虎^{1,2}・北澤孝史¹・中田正美²・中本忠宏²・山下利之²・竹田満洲雄¹
- 2 B 03 $\text{Zr}_{1-x}\text{Gd}_x\text{O}_{2-x/2}$ ($0.35 \leq x \leq 0.55$) 固溶体の ^{155}Gd メスバウアー分光法による研究
(東邦大理¹・原研²) ○王軍虎^{1,2}・音部治幹²・中村彰夫²・竹田満洲雄¹

座長 西田哲明 (11:15~12:00)

- 2 B 04 $\text{ZrO}_2\text{-Eu}_2\text{O}_3$ 系固溶体の ^{151}Eu メスバウアー分光
(原研) ○正木信行・Neil Guillermo・音部治幹・中田正美・中村彰夫
- 2 B 05 メスバウアー分光法を用いた硫酸還元菌による硫化鉄化合物生成過程に関する研究
(東大院総合・東邦大医¹) ○小野島直子・松尾基之・杉森賢司¹
- 2 B 06 リチウムイオン蓄電用材料の in-situ ^{57}Fe メスバウアースペクトル測定による電極反応の追跡
(大同工大・大阪市大工¹) ○酒井陽一・有吉欽吾¹・武田幸大¹・小槻勉¹

< 昼 休 み > (12:00~13:30)

座長 村松久和 (13:30~14:30)

- 2 B 07 キトサン-鉄イオンのメスバウアー分光学的研究
(都立大院理) D. Afroj・○片田元己
- 2 B 08 炭酸ガス吸収酸化物のメスバウアー解析
(東大院工・EL大¹・物質工研²) ○野村貴美・Z. Homonnay¹・早川孝²
- 2 B 09 FePS_3 -アミン類層間化合物のメスバウアー分光学的研究
(甲南大理) ○酒井宏・浮田涼子・町田信也・重松利彦
- 2 B 10 メスバウアー分光法による低温マトリックス単離した鉄原子の反応生成物の研究
(東理大理) ○山田康洋・勝又啓一・島崎秀生・小野祐樹・山口加代子

C 会場 (406 室)

[環境放射能]

座長 関根 勉 (10:30~11:15)

- 2 C 01 加速器トンネル空気中に生成するトリチウムの測定 (2)
— 中空糸高分子膜を用いたトリチウム濃縮について
(静大・高エネ研¹) ○島田亜佐子・森本泰臣・井口一成・奥野健二・佐々木慎一¹・鈴木健訓¹・近藤健次郎¹
- 2 C 02 INAA および ICP-MS によるイカ内臓中の微量元素の定量
(日本分析セ・華東地質学院¹) ○岸本武士・黄臨平¹・小林裕・佐藤兼章・樋口英雄
- 2 C 03 森林土壌中の Cs-137 分布 —有機態炭素含有量との関係—
(名大院生命農学・金沢大理¹・筑波大自然²) ○竹中千里・浜島靖典¹・恩田裕一²

座長 永井尚生 (11:15~12:00)

- 2 C 04 Determination of Cl-36 in Soil Collected at the Former Soviet Union's Semipalatinsk Nuclear Test Site
(九大院理・金沢大LLRL¹) ○Sergei Tolmachyov・浦佐智子・御手洗志郎・百島則幸・山本政儀¹・前田米藏
- 2 C 05 微生物活動によるポロニウムの大気への放出
(九大院理・九大RIセ¹) ○宋麗香・百島則幸・大崎進¹・前田米藏
- 2 C 06 コンクリート構成材中の⁴¹Ca 定量法について
(日本分析センター) ○及川真司・三浦勉・森本隆夫

< 昼 休 み > (12:00~13:30)

座長 五十嵐康人 (13:30~14:30)

- 2 C 07 ピナツボ火山の1991年の噴火に起因すると推定される大気中の²¹⁰Pb濃度の一時的上昇
— 韓国ソウルにおける観測 —
(明治大理工・国立環境研¹) ○佐藤深・土井妙子¹・佐藤純
- 2 C 08 堺における⁷Be及び²¹⁰Pbの大気中濃度及び降下量の変遷
(阪府大先端科研・阪府大¹) ○恵和子・松並忠男¹・伊藤憲男・清田俊治
- 2 C 09 太平洋-インド洋における⁷Be, ¹⁰Be および ²¹⁰Pbの大気中の分布
(日大文理・九大理¹・北大院地球環境²) ○多田亘・永井尚生・小林貴之・百島則幸¹・村山雅史²
- 2 C 10 大気中の¹⁰Be・⁷Beの生成速度
(日大文理) ○永井尚生・多田亘・小林貴之

10月15日(金)

S会場(300室)

[依頼講演] 座長 中西孝 (9:00~9:40)

- 3 R 01 環境放射能研究の現状と未来
(九大院理) 百島則幸

[招待講演] 座長 永目諭一郎 (9:40~10:20)

- 3 I 01 Radiochemistry in India - An Overview -
(インド・Bhabha Atomic Research Centre) S.B. Manohar

A会場(303室)

[医学・薬学・生物学におけるRIの利用]

座長 天野良平 (10:30~11:15)

- 3 A 01 スピントラッピング法を用いたラジカル消去能の新測定法
—放射線で生成する・OHの茶カテキンによる消去—
(静大理・京大原子炉¹・静岡県大環境研²) ○吉岡潤江・大橋康典・田中愛子¹・赤星光彦¹・吉岡寿²
- 3 A 02 Co-60ガンマ線によるDNA鎖切断と鉄(II)クエン酸錯体誘発DNA鎖切断に対する茶カテキンの防御効果の比較
(静大理・静岡県大環境研¹) ○大橋康典・吉岡潤江・吉岡寿¹

- 3 A 03 希土類元素と生体分子との結合について
(京大原子炉) ○赤星光彦・田中愛子・中野幸広・藤井紀子

座長 奥野健二 (11:15~12:15)

- 3 A 04 成長期マウスにおけるマルチトレーサの生体内挙動
(金沢大院自・医¹・理²・理研³) ○太郎田融・天野良平¹・坂本浩²・榎本秀一³

[蛍光X線分析]

- 3 A 05 蛍光X線法を用いた地衣類の多元素同時定量
(筑波大院環境・筑波大院理工¹・国立環境研²・筑波大化³) ○山口智寛・齋藤陽子¹・久米博²・関李紀³

[放射線教育]

- 3 A 06 放射線に関する単位と放射線影響の化学的教育法
(阪府大先端科学研) ○朝野武美
- 3 A 07 社会教育としての核・放射化学教育
(財環境研) ○荒谷美智

< 昼 休 み > (12:15~13:30)

B 会場 (405 室)

[メスバウアー分光]

座長 小林義男 (10:30~11:00)

- 3 B 01 金属マトリックス中における¹³³Csのメスバウアー異性体シフト
(信州大教・原研物質科学¹・高エネ研²) ○吉川広輔・下村晴彦・石井寛子・田中栄司・村松久和・渡辺智¹・長明彦¹・小泉光生¹・関根俊明¹・三浦太一²
- 3 B 02 ヨウ素化合物のDV-X_α計算 -メスバウアーパラメータとの比較-
(甲南大理) ○酒井宏・世木隆・町田信也・重松利彦

[ホットアトム・角相関]

座長 高橋成人 (11:00~12:00)

- 3 B 03 金属内包フラーレン研究へのγ-γ摂動角相関法の応用 (II)
(都立大院理・京大原子炉¹・理研²・電通大³) ○佐藤渉・末木啓介・菊地耕一・鈴木信三・阿知波洋次・中原弘道・大久保嘉高¹・安部文敏²・浅井吉蔵³
- 3 B 04 摂動角相関によるLiNbO₃およびLiTaO₃中の¹¹⁷Cd → ¹¹⁷Inと^{111m}Cd → ¹¹¹Cdプローブの化学的研究
(京大炉・阪大院理¹・阪大RIセ²) ○大久保嘉高・村上幸弘¹・斎藤直²・上原進一・横山明彦¹・柴田誠一・川瀬洋一
- 3 B 05 固体における高エネルギーイオンのホットアトム化学的過程に関する研究 (II)
-Si中の高エネルギー重水素の化学的挙動-
(静大理放射研・原研¹) ○森本泰臣・井口一成・島田亜佐子・奥野健二・中村博文¹・西正孝¹
- 3 B 06 水溶性大環状金属錯体系における反跳効果(続) (水溶性金属フタロシアニン系について)
(筑波大化) ○荘司準

< 昼 休 み > (12:00~13:30)

C 会場 (406 室)

[環境放射能]

座長 小島貞男 (10:30~11:15)

- 3 C 01 深海堆積物における Pu-238/Pu-239, 240 放射能比
(金沢大院自然・金沢大理¹) 堀田和男・M.A. Haque・○中西孝¹
- 3 C 02 宮城県沿岸における海産生物中の天然放射性核種濃度
(宮城県原子力セ) ○石川陽一・吉田徳行・大庭和彦・星野和行
- 3 C 03 ICP-MS によるプルトニウム測定の際の分子イオンの影響
(日本分析セ・新潟保環研¹) ○岸本武士・磯貝啓介・佐藤兼章・殿内重政¹

座長 石川陽一 (11:15~12:00)

- 3 C 04 α 放射体の液体シンチレーション測定における空気ルミネセンスの影響
(共立薬科大学) ○村瀬裕子・本間義夫
- 3 C 05 環境中性子による放射化とその利用 (1) 極低バックグラウンド γ 線計測で検出可能な中性子放射化核種
(金沢大理 LLRL) ○小村和久・Ahmed M. Yousef
- 3 C 06 環境中性子による放射化とその利用 (2) 金の放射化による環境中性子評価
(金沢大理 LLRL) 小村和久・○Ahmed M. Yousef

< 昼 休 み > (12:00~13:30)

ポスター発表 (13:30~15:30)

P1 会場 (401 室)

[放射化分析、核化学、アクチノイド化学]

- 3 P 01 クロロアルカリ工場跡地付近の環境に残留する有機態ハロゲン (EOX)
(愛媛大農・ミシガン州立大環境毒性研¹・横浜市大医²) ○河野公栄・K. Kannan¹・鹿島勇治²・松井三明²・
J. P. Giesy¹・脇本忠明
- 3 P 02 セレン欠乏ラット肝細胞分画中の元素分布
(昭和薬大・理研¹) ○松本謙一郎・上田幸代・浦田ひろみ・遠藤和豊・蛭沼利江子¹・榎本秀一¹・
安部静子¹・安部文敏¹
- 3 P 03 ラットの即発 γ 線分析
(都立大院理・理研¹) ○大浦泰嗣・榎本秀一¹・中原弘道
- 3 P 04 薄膜中の炭素、窒素の非破壊光量子放射化分析
(NTT PH研・KEK¹・核理研²) ○鹿野弘二・加藤正明・榎本和義¹・大槻勤²
- 3 P 05 Mn 濃度の比較的高い鉄鋼試料中の Mn と V の INAA
(立教大原研) 戸村健児・○戸室裕行
- 3 P 06 シダ植物成熟葉と未成熟葉中の希土類元素分布について
(京大原子炉・京大演習林¹) ○高田実弥・西村和雄¹・田中愛子・藤井紀子・赤星光彦
- 3 P 07 琵琶湖の堆積物および間隙水中の微量元素の放射化分析
(愛知医大・名大年代セ¹・京大原子炉²・琵琶湖研³・四日市大環境情報⁴) ○小島貞男・小田寛貴¹・
中村俊夫¹・高田實彌²・横田喜一郎³・古川路明⁴
- 3 P 08 サイクル機構における加速器質量分析計の性能と同位体地球化学的研究への応用
(サイクル機構) ○濱克宏・徐勝

- 3 P 09 Rf 硝酸錯体の電子状態
(原研) ○平田勝・Turgut Bastug・永目諭一郎
- 3 P 10 オンライン同位体分離器を用いた軽元素不安定核の分離(2)
(原研) ○長明彦・関根俊明・小泉光生
- 3 P 11 テクネチウム98の半減期
(日大文理・都立大院¹) ○小林貴之・末木啓介¹・海老原充¹・中原弘道¹
- 3 P 12 タングステン化合物のガスクロマトグラフ的挙動
(新潟大理) ○金子哲也・木村進一・工藤久昭
- 3 P 13 軽アクチノイド陽子誘起核分裂における核分裂片の角運動量
(新潟大理・東北大サイクロ¹) ○後藤真一・加治大哉・工藤久昭・藤田正広¹・篠塚勉¹・藤岡学¹
- 3 P 14 アクチノイド核分裂における質量・運動エネルギー分布の励起エネルギー依存性異常
(原研先端研¹・新潟大理理²・東大理³・都立大院理⁴) ○西中一朗¹・後藤真一²・谷川勝至³・趙宇亮⁴・永目諭一郎¹・塚田和明¹・浅井雅人¹・市川進一¹・中原弘道⁴
- 3 P 15 $^{233}\text{U}(n_{\text{th}},f)$ における核分裂片の運動エネルギーと励起エネルギー
(京大原子炉・阪大院理¹・阪大RIセ²) ○高宮幸一・荒木宏一¹・真田潤¹・豊嶋厚史¹・横山明彦¹・高橋成人¹・斎藤直²・馬場宏¹・篠原厚・中込良廣
- 3 P 16 中高エネルギー光子によって起こるフラグメンテーション反応
(金沢大理・金沢大医¹・原研²・都立大院理³・京大原子炉⁴・追手門学院大経⁵・四日市大環境情報⁶・日大文理⁷・東大原総セ⁸) ○松村宏・鷺山幸信¹・羽場宏光²・山下万寿美・坂本浩・宮本ユタカ²・大浦泰嗣³・柴田誠一⁴・藤原一郎⁵・古川路明⁶・永井尚生⁷・小林貴之⁷・小林絃一⁸
- 3 P 17 重核領域における中高エネルギー光核破碎反応の放射化学的研究
(金沢大理・原研¹・金沢大医²・都立大院理³・京大原子炉⁴・追手門学院大経⁵・四日市大環境情報⁶) ○山下万寿美・吉田幸市・寺田佳之・永野章・河嶋由希・長田大輔・羽場宏光¹・松村宏・鷺山幸信²・坂本浩・宮本ユタカ¹・大浦泰嗣³・柴田誠一⁴・藤原一郎⁵・古川路明⁶
- 3 P 18 ^{197}Au と ^{209}Bi の中高エネルギー光核分裂反応の放射化学的研究
(原研・金沢大理¹・金沢大院自然科学²・金沢大医³・都立大院理⁴・京大原子炉⁵・四日市大環境情報⁶・追手門学院大経⁷) ○羽場宏光・五十嵐学¹・笠岡誠¹・菊永英寿¹・松村宏²・山下万寿美²・坂本浩^{1,2}・鷺山幸信³・大浦泰嗣⁴・柴田誠一⁵・古川路明⁶・藤原一郎⁷
- 3 P 19 低エネルギー光子照射による軽核生成反応の放射化学的研究
(金沢大医・金沢大院¹・金沢大理²・原研³・都立大院理⁴・京大原子炉⁵・四日市大環境情報⁶・追手門学院大経⁷・日大文理⁸・東大原総セ⁹) ○鷺山幸信・松村宏¹・坂本浩²・羽場宏光³・宮本ユタカ³・大浦泰嗣⁴・柴田誠一⁵・古川路明⁶・藤原一郎⁷・永井尚生⁸・小林貴之⁸・小林絃一⁹
- 3 P 20 XAFS法による硝酸水溶液中における Cm(III) およびランタノイド(III) の存在状態解析
(原研・LBNL¹・LLNL²) ○矢板毅・成田弘一・鈴木伸一・館盛勝一・N. M. Edelstein¹・D. K. Shuh¹・J. J. Bucher¹・L. Rao¹・P. G. Allen²

P2 会場 (402 室)

[環境放射能、同位体化学、医学・薬学・生物学におけるRIの利用]

- 3 P 21 高エネルギー陽子加速器のトンネル内で生成する放射性エアロゾル(II)
(高エネ研・原研¹) ○沖雄一・遠藤章¹・神田征夫・近藤健次郎
- 3 P 22 高エネルギー陽子加速器のトンネル内で生成する ^{13}N ガスの化学形
(原研・高エネ研¹) ○遠藤章・神田征夫¹・沖雄一¹・近藤健次郎¹

- 3 P 23 高エネルギー陽子加速器施設における内部被曝線量評価のための放射能測定法の開発
(高エネ研) ○沼尻正晴・沖雄一・三浦太一・鈴木健訓・近藤健次郎
- 3 P 24 放射化法による入射粒子数モニターの校正
(高エネ研) ○沼尻正晴・三浦太一・沖雄一・鈴木健訓・近藤健次郎
- 3 P 25 加速器室内における中性子空間分布のイメージ化
(高エネ研) ○榎本和義・豊田晶弘・江田和由
- 3 P 26 高エネ研東カウンターホール床下土壤中に生成する放射性同位元素濃度
(高エネ研・TNS¹) ○三浦太一・別所光太郎・石浜茂夫¹・大塚憲一¹
- 3 P 27 富士山頂での⁷Beの濃度変動 - O₃との比較
(気象研地球化学・金沢大低レベル放射能実験施設¹、気象研環境応用²) ○五十嵐康人・小村和久¹・堤之智²・青山道夫・山本政儀¹・廣瀬勝己
- 3 P 28 つくばにおける表土中の人工及び天然放射性核種について
(気象研) ○廣瀬勝己・五十嵐康人・青山道夫
- 3 P 29 最近の西部北太平洋海水中のCs-137濃度
(気象研地球化学) ○青山道夫・廣瀬勝己・宮尾孝・五十嵐康人
- 3 P 30 堆積物における生物攪乱と放射性核種の分布
(地質調査所) ○金井豊
- 3 P 31 深海堆積物中の天然Pu-244の探索
(金沢大院自然・金沢大理¹) 橋本有司・新中浩介¹・○中西孝¹・坂本浩¹
- 3 P 32 埋没スギ材年輪試料のC-14年代測定 - 2
(大阪府大先端科研・福島大学教育学部生物学教室¹) ○柴田せつ子・川野瑛子・木村勝彦¹
- 3 P 33 ICP-MSによる環境試料中のウラン同位体比測定
- 抽出クロマトグラフィック・レジンによるウランの分離・濃縮法について -
(放医研・セベリア大¹) ○田上恵子・内田滋夫・R.Garcia-Tenorio¹
- 3 P 34 バイカル湖湖底堆積物の²¹⁰Pb法による堆積速度と¹³⁷Cs濃度
(国立環境研・明治大学理工¹) ○土井妙子・高松武次郎・佐藤純¹
- 3 P 35 混合溶媒(メタノール/水)溶液中におけるLu³⁺およびLuF²⁺の配位数変動
(静岡大院理工・静岡大理¹) 有阪真・多久和直子¹・○菅沼英夫¹
- 3 P 36 放射性ヨウ素及びアスタチンの溶媒抽出挙動
(阪大院理) Mahfuza Sharifa Sultana・○豊嶋厚史・高橋成人・三藤安佐枝・馬場宏
- 3 P 37 ¹⁸⁶W(d,2n)¹⁸⁶Re反応の励起関数の測定:¹⁸⁶Reの製造
(原研) ○石岡典子・松岡弘充・渡辺智・長明彦・小泉光生・関根俊明
- 3 P 38 植物研究のための金属元素ポジロン放射体の製造
(原研) ○渡辺智・石岡典子・長明彦・小泉光生・関根俊明
- 3 P 39 機器中性子放射化分析法による標準土壌試料の無機元素分析
(明治大農・昭和薬大¹・静岡大理²・NIST³・Missouri大⁴・Maryland大⁵) ○塚田正道・佐藤大英・遠藤和豊¹・矢永誠人²・L.A. Currie³・M.D. Glascock⁴・J.M. Ondov⁵・M. Han⁵
- 3 P 40 植物による元素の取り込み過程で生じる元素間の拮抗作用に関する研究
(理研・武蔵大¹・東大アイン総セ²) ○尾崎卓郎・川村昌寛・安部静子・榎本秀一・薬袋佳孝¹・巻出義紘²
- 3 P 41 マルチトレーサー法による有機金属錯体の合成および応用研究
(理研・金沢大医¹) ○川村昌寛・尾崎卓郎・榎本秀一・天野良平¹
- 3 P 42 アミノメチレンリン酸を配位子とする¹⁸⁸Re錯体のヒドロキシアパタイトへの吸着
(原研東海) ○橋本和幸・松岡弘充
- 3 P 43 高分解能X線発光・吸収分光法による軽元素分子の構造異性体識別
(NTT生活環境研究所) ○村松康司

P3 会場 (403 室)

[ポジトロン、メスバウアー分光、放射能測定、その他]

- 3 P 44 シロキサン重合体中でのポジトロニウムの寿命
(信州大教育) ○下村晴彦・村松久和
- 3 P 45 液体シンチレータ中でのポジトロニウムの消滅過程
(東北大院理・東大原総セ¹・KEK²) ○木野康志・関根勉・佐藤靖祥・工藤博司・伊藤泰男¹・鈴木健訓²
- 3 P 46 極低温におけるポジトロニウム生成の増加について
(KEK・総研大¹・東大原総セ²) ○鈴木健訓・Tomasz Goworek・近藤健次郎・浜田栄作¹・伊藤泰男²
- 3 P 47 反陽子ヘリウム原子のエネルギー準位の原子衝突による補正
(東北大院理・九大院理¹) ○西村直之・木野康志・上村正康¹・工藤博司
- 3 P 48 金属イオンの中性子捕獲反応による金属内包フラーレンの安定性
(都立大理) ○末木啓介・秋山和彦・伊藤いずみ・菊地耕一・中原弘道
- 3 P 49 7配位金属カルボニル $[M_2(CO)_3(SbPh_3)L]$ および $[M_3(CO)_3(SbPh_3)]$ ($M = Mo, W; L = PPh_3, AsPh_3$) の ^{121}Sb ならびに ^{127}I メスバウアースペクトル
(東邦大理) 石黒淳・○高橋正・竹田満洲雄
- 3 P 50 Gd(III)-EDTA 錯体の ^{155}Gd メスバウアースペクトルと結晶構造
(東邦大理) ○王軍虎・野本祐子・高橋正・竹田満洲雄
- 3 P 51 $[Fe(CN)_5(Sb(C_6H_5)_3)]^{n-}$ ($n=2, 3$) における Sb-Fe 結合の ^{57}Fe および ^{121}Sb メスバウアー分光法による研究
(東邦大理) ○前田正樹・高橋正・竹田満洲雄
- 3 P 52 アンチモン-アンチモン二重結合を持つ化合物の ^{121}Sb メスバウアースペクトル
(東邦大理・九大有基研¹・日本女子大理²) ○竹田満洲雄・石黒淳・高橋正・笹森貴裕¹・時任宣博¹・岡崎廉治²
- 3 P 53 $(Ph_4Sb)_3[Fe(CN)_6]$ の ^{57}Fe および ^{121}Sb メスバウアースペクトルと結晶構造
(東邦大理) ○北澤孝史・森野寛士・高橋正・竹田満洲雄
- 3 P 54 α 型水酸化ネプツニル(VI)無水塩の Np-237 メスバウアースペクトルと結晶構造
(東邦大理¹・原研²) ○北澤孝史¹・斉藤貴史^{1,2}・王軍虎^{1,2}・中田正美²・山下利之²・佐伯正克²・竹田満洲雄¹
- 3 P 55 Np(V) 及び Np(VI) 化学種を含む硝酸凍結溶液の ^{237}Np メスバウアー分光
(原研・東邦大理¹) ○中田正美・王軍虎¹・北澤孝史¹・竹田満洲雄¹・筒井智嗣・正木信行・山下利之
- 3 P 56 $[Fe_3O(paza)_6(py)_3] \cdot 3py$ の構造と非局在化原子価状態
(九大院理・KAST¹・分子研²) 真子輝明・速水真也¹・矢野弥生・井上克也²・○前田米藏
- 3 P 57 ヘキサシアノ鉄(III)酸テトラエチルアンモニウムのメスバウアースペクトル
(生命工研) ○飯島誠一郎・水谷文雄
- 3 P 58 層間化合物 M_xTiS_2 の DV- X_α 計算
(甲南大理) 酒井宏・○世木隆・町田信也・重松利彦
- 3 P 59 長石からの放射線誘起ルミネッセンス特性について
(新潟大理) ○橋本哲夫・高野雅人・坂上央存
- 3 P 60 Comparison of Equivalent Dose Values Determined by Luminescence Stimulation Using Blue and Green Light
(新潟大・Edinburgh大¹) ○D.G. Hong・R.B. Galloway¹
- 3 P 61 筑波大学タンデム加速器を用いた Cl-36 の AMS 測定
(筑波大環境・筑波大医療短大¹・筑波大加速器セ²・国立環境研³・筑波大化⁴) ○新井大輔・長島泰夫¹・高橋努²・久米博³・関李紀⁴

- 3 P 62 プール型原子炉における燃料破損監視
(立教大理・立教大原研¹) ○山田親義・佐々木研一・林脩平¹・松浦辰男¹
- 3 P 63 環境中性子による放射化とその利用 (3) 食卓塩とキッチンフオイルによる飛行時の中性子測定
(金沢大理LLRL) ○小村和久
- 3 P 64 Ag-108m で汚染された銀製品
(金沢大理LLRL) ○小村和久・Ahmed M. Yousef
- 3 P 65 極低レベル放射能測定における S/N 比改善 海産物および海水試料の場合
(金沢大理LLRL) 小村和久・○小藤久毅・佐々木圭一
- 3 P 66 極低バックグラウンドβ線検出器による環境中³²Siの測定
(金沢大LLRL) ○小藤久毅・小村和久・山本政儀
- 3 P 67 液体シンチレーションスペクトロメータのゼロしきい値への外挿による軟β放射体の絶対測定法
(共立薬科大学) ○本間義夫・村瀬裕子

LIST OF PAPERS

presented at

THE 43rd SYMPOSIUM ON RADIOCHEMISTRY

October 13-15, 1999

Tsukuba International Congress Center

Organizing Committee, Chairman

High Energy Accelerator Research Organization

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Seiichiro IJIMA

Yutaka KANAI

University of Tsukuba

National Institute for Environmental Studies

Meteorological Research Institute

National Institute of Bioscience and Human-Technology

Geological Survey of Japan

Time Table

	13 October			14 October			15 October		
	A	B	C	A	B	C	A	B	C
9:00	Registration(8:30)			9:00-10:20(S) Plenary Session 3 2R01:H.Kudo(Japan) 2I01 :Xiangyun Wang(China)			9:00-10:20(S) Plenary Session 6 3R01:N.Momoshima(Japan) 3I01 :S.B.Manohar(India)		
10:00	9:30-10:50(S) Plenary Session 1 1R01:A.Shinohara(Japan) 1I01 :Tieh-Chi Chu(Taiwan)			10:30-12:00			10:30-12:00		
11:00	11:00-12:00			2A01-2A03 Isotope Chemistry 2A04-2A06 Actinoid Chemistry	2B01-2B06 Mössbauer	2C01-2C06 Environmental Radioactivity	3A01-3A04 Biomedical 3A05-3A07 XRF, Education	3B01-3B02 Mössbauer 3B03-3B06 Hot Atom, PAC	3C01-3C06 Environmental Radioactivity
12:00	1A01-1A04 Nuclear Property	1B01-1B04 Meson	1C01-1C04 Activation Analysis	Lunch Subcommittee Meetings: Nuclear Chemistry(B) Nuclear Probe Chemistry (C)			Lunch Subcommittee Meetings: α emitters and Environmental Radioactivity(B) Activation Analysis(C)		
13:30	13:30-14:50(S) Plenary Session 2 1R02:Y.Minai(Japan) 1I02 :T.Goworek(Poland)			2A07-2A10 Luminescence	2B07-2B10 Mössbauer	2C07-2C10 Environmental Radioactivity	13:30-15:30(P) Poster Session P1(401), 3P01-3P20: Activation Analysis, Nuclear Chemistry, Actinoid P2(402), 3P21-3P43: Environmental Radioactivity, Biomedical, Isotope Chemistry P3(403), 3P44-3P67: Positron, Mössbauer, Method, Others		
14:00	15:00-17:00			14:40-16:00(S) Plenary Session 4 2I02:Chai Zhifang(China) 2I03:B.F.Myasoedov(Russia)			END		
15:00	1A05-1A10 Nuclear Reaction	1B05-1B06 Positron	1C05-1C12 Activation Analysis	16:10-17:50(S) Plenary Session 5 2S01:S.Nagamiya(Japan) 2S02:K.E.Gregorich(USA)					
16:00	1A11-1A12 Isotope Chemistry	1B07-1B12 Mössbauer		18:00-20:00 Banquet(101,102)					
17:00	Break for supper								
18:00	Panel Discussion (S) What do you expect to the new society?								
20:55	END								

Room A: 303, B: 405, C: 406, S(Plenary Session):300, P(Poster): P1(401), P2(402), P3(403)

Plenary Lectures

[Plenary Session 1]

- 1 R 01** FORMATION PROCESS OF PIONIC ATOMS AND ITS BEHAVIOR IN MATERIAL
Shinohara, A. (Research Reactor Institute, Kyoto University)
- 1 I 01** RADIOACTIVE DISEQUILIBRIUM OF URANIUM AND THORIUM NUCLIDE SERIES IN HOT SPRING AND RIVER WATER FROM PEITOU HOT SPRING BASIN IN TAIPEI
Chu, Tieh-Chi (National Tsing Hua University, Taiwan)

[Plenary Session 2]

- 1 R 02** ADVANCED USE OF NEUTRON ACTIVATION ANALYSIS IN GEOCHEMISTRY AND ENVIRONMENTAL CHEMISTRY
Minai, Y. (Nezu Institute of Chemistry and Faculty of Humanities, Musashi University)
- 1 I 02** POSITRONIUM AS A PROBE OF SMALL FREE VOLUMES
Goworek, T. (Maria Curie-Sklodowska University, Poland)

[Plenary Session 3]

- 2 R 01** NUCLEAR CHEMISTRY IN JAPAN
Kudo, H. (Faculty of Science, Niigata University)
- 2 I 01** RADIOPHARMACEUTICAL CHEMISTRY IN PEKING UNIVERSITY (PKU)
Wang, Xiangyun (Peking University, China)

[Plenary Session 4]

- 2 I 02** MODERN NUCLEAR ANALYTICAL TECHNIQUES AND THEIR APPLICATIONS IN CHINA
Chai, Zhifang (Institute of High Energy Physics and Laboratory of Nuclear Analytical Techniques, China)
- 2 I 03** CENTURY OF RADIOCHEMISTRY: HISTORY AND FUTURE
Myasoedov, B.F. (Vernadsky Institute of Geochemistry and Analytical Chemistry of Russian Academy of Sciences, Russia)

[Plenary Session 5]

- 2 S 01** FRONTIER SCIENCES WITH FUTURE HIGH INTENSITY ACCELERATORS IN JAPAN
Nagamiya, S. (High Energy Accelerator Research Organization)
- 2 S 02** SUPERHEAVY ELEMENTS WITH THE BERKELEY GAS-FILLED SEPARATOR
Gregorich, K.E. (Lawrence Berkeley Laboratory, USA)

[Plenary Session 6]

- 3 R 01** PRESENT RESEARCH ON THE ENVIRONMENTAL RADIOACTIVITY AND ITS PERSPECTIVE IN JAPAN
Momoshima, N. (Graduate School of Science, Kyushu University)
- 3 I 01** RADIOCHEMISTRY IN INDIA - AN OVERVIEW -
Manohar, S.B. (Bhabha Atomic Research Centre, India)

Wednesday, 13 October

[Plenary Session 1]

9:30 – 10:50, Wednesday, 13 October

- 1 R 01** FORMATION PROCESS OF PIONIC ATOMS AND ITS BEHAVIOR IN MATERIAL
Shinohara, A. (Research Reactor Institute, Kyoto University)
- 1 I 01** RADIOACTIVE DISEQUILIBRIUM OF URANIUM AND THORIUM NUCLIDE SERIES IN HOT SPRING AND RIVER WATER FROM PEITOU HOT SPRING BASIN IN TAIPEI
Chu, Tieh-Chi (National Tsing Hua University, Taiwan)

[Plenary Session 2]

13:30 – 14:50, Wednesday, 13 October

- 1 R 02** ADVANCED APPLICATIONS OF NEUTRON ACTIVATION ANALYSIS IN GEOCHEMISTRY AND ENVIRONMENTAL CHEMISTRY
Minai, Y. (Nezu Institute of Chemistry and Faculty of Humanities, Musashi University)
- 1 I 02** POSITRONIUM AS A PROBE OF SMALL FREE VOLUMES
Goworek, Tomasz (Maria Curie-Sklodowska University, Poland)

[Nuclear Property]

11:00 – 12:00, Wednesday, 13 October

- 1 A 01** DECAY PROPERTIES OF NEUTRON-DEFICIENT AMERICIUM ISOTOPES
Sakama, M., Tsukada, K., Asai, M., Ichikawa, S., Nishinaka, I., Haba, H., Goto, S., Nagame, Y., Osa, A., (Japan Atomic Energy Research Institute)
Sakama, M., Oura, Y., Ebihara, N., Nakahara, H. (Department of Chemistry, Tokyo Metropolitan University)
Shibata, M., Kawade, K. (Department of Energy Engineering and Science, Nagoya University)
Kojima, Y. (Department of Applied Physics, Hiroshima University)
Goto, S. (Department of Chemistry, Niigata University)
- 1 A 02** DECAY SPECTROSCOPY OF NEUTRON-RICH LANTHANIDE ISOTOPES
Ichikawa, S., Asai, M., Tsukada, K., Osa, A., Haba, H., Nishinaka, I., Nagame, Y. (Japan Atomic Energy Research Institute)
Kojima, Y. (Faculty of Engineering, Hiroshima University)
Shibata, M., Kawade, K. (Department of Energy Engineering and Science, Nagoya University)
Oura, Y., Sakama, M. (Department of Chemistry, Tokyo Metropolitan University)
- 1 A 03** CHEMICAL BEHAVIOUR OF RUTHERFORDIUM (Rf, ELEMENT 104) IN ION-EXCHANGER
Tsukada, K., Asai, M., Nagame, Y., Nishinaka, I., Sakama, M., (Japan Atomic Energy Research Institute)
Brüchle, W., Jäger, E., Li, Z., Schädel, M., Schausten, B., Shimpf, E. (Gesellschaft für Schwerionenforschung)
Eichler, R., Gäggeler, H.W., Grund, A., Jost, D.T., Türlér, A. (Paul Scherrer Institute)
Gäggeler, H.W., Gärtner, M. (Universität Bern)
Glatz, J.P. (Institute for Transuranium Elements)
Kratz, J.V., Kronenberg, A., Nähler, A., Strub, E., Thörle, P., Zauner, S. (Universität Mainz)
Kirbach, U., Schumann, D. (Technische Universität Dresden)
- 1 A 04** CATEGORIES OF THE DEFORMATION DEGREE OF THE FISSIONING NUCLEUS
Zhao, Y., Sueki, K., Oura, Y., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
Nishinaka, I., Nagame, Y., Tsukada, K., Ichikawa, S. (Japan Atomic Energy Research Institute)
Tanikawa, M. (School of Science, The University of Tokyo)
Goto, S. (Graduate School of Science and Technology, Niigata University)

[Nuclear Reaction]

15:00 – 16:30, Wednesday, 13 October

- 1 A 05** FISSION CHARACTERISTICS OF HEAVY NUCLEI
Nagame, Y., Nishinaka, I., Tsukada, K., Ichikawa, S. (Japan Atomic Energy Research Institute)
 Zhao, Y., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
 Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)
- 1 A 06** FRAGMENT MASS AND CHARGE DISTRIBUTIONS IN THE THERMAL NEUTRON INDUCED FISSION OF ^{242m}Am
 Sanada, J., Araki, H., Takahashi, N., Baba, H., Yokoyama, A. (Graduate School of Science, Osaka University)
 Kobayashi, K., Shinohara, A., Takamiya, K. (Research Reactor Institute, Kyoto University)
 Fujiwara, I. (School of Economics, Otemon-Gakuin University)
Saito, T. (Radioisotope Research Center, Osaka University)
- 1 A 07** SYSTEMATIC RECOIL STUDY OF PHOTOSPALLATION REACTIONS AT INTERMEDIATE ENERGIES
Haba, H. (Japan Atomic Energy Research Institute)
 Matsumura, H., Yamashita, M., Sakamoto, K. (Graduate School of Natural Science and Technology, Kanazawa University)
 Washiyama, K. (Faculty of Medicine, Kanazawa University)
 Oura, Y. (Graduate School of Science, Tokyo Metropolitan University)
 Shibata, S. (Research Reactor Institute, Kyoto University)
 Furukawa, M. (Faculty of Environmental and Information Sciences, Yokkaichi University)
 Fujiwara, I. (Faculty of Economics, Otemon-Gakuin University)
- 1 A 08** PREFRAGMENT IN TARGET FRAGMENTATION OF HEAVY NUCLEI WITH HIGH-ENERGY HEAVY IONS
Yokoyama, A., Morimoto, S., Araki, H., Sanada, J. (Graduate School of Science, Osaka University)
 Saito, T., Baba, H. (Radioisotope Research Center, Osaka University)
 Shibata, S. (National Institute of Radiological Sciences)
 Shinohara, A., Ohkubo, Y. (Research Reactor Institute, Kyoto University)
- 1 A 09** GAS PHASE REACTION OF FISSION PRODUCTS WITH DIPIVALOYLMETHANE
Kimura, S., Kaneko, T., Hirai, T., Kudo, H. (Faculty of Science, Niigata University)
- 1 A 10** MEASUREMENT OF THE EXCITATION FUNCTION FOR $^{63}\text{Cu}(n,p)^{63}\text{Ni}$ AT $E_n < 6.5\text{MeV}$
Takamiya, K., Shinohara, A., Shibata, S. (Research Reactor Institute, Kyoto University)
 Shibata, T., Itoh, Y. (High Energy Accelerator Research Organization)
 Imamura, M. (National Museum of Japanese History)
 Uwamino, Y. (The Institute of Physical and Chemical Research)
 Nogawa, N. (Radioisotope Research Center, The University of Tokyo)
 Baba, M., Iwasaki, S., Matsuyama, S. (Faculty of Engineering, Tohoku University)

[Isotope Chemistry]

16:30 – 17:00, Wednesday, 13 October

- 1 A 11** SIMULTANEOUS DETERMINATION OF THE OPTICAL ABSORPTION AND SCATTERING CROSS SECTIONS OF HAEMATITE COLLOIDS BY LASER-INDUCED PHOTOACOUSTIC SPECTROSCOPY
Saiki, Y., Degura, T., Sekine, T., Kino, Y., Kudo, H. (Graduate School of Science, Tohoku University)
- 1 A 12** CONVERSION MECHANISM BETWEEN *anti* AND *syn* CONFORMATIONS OF RHENIUM COMPLEX WITH KYCAR PEPTIDE
Takayama, T., Suzuki, K., Sekine, T., Kudo, H. (Graduate School of Science, Tohoku University)

[Meson, Positron]

11:00 – 12:00, Wednesday, 13 October

- 1 B 01** STRUCTURE AND NUCLEAR FUSION RATE OF MUONIC MOLECULAR ION $(\text{tt}\mu)^+$
Shibata, H., Kino, Y., Kudo, H. (Graduate School of Science, Tohoku University)
- 1 B 02** PRECISE CALCULATION OF STRUCTURE AND TRANSITION RATES OF $(\text{H}_2\text{Mu})^+$ MOLECULE
Toya, Y., Kino, Y., Kudo, H. (Graduate School of Science, Tohoku University)
 Yokoyama, K. (Japan Atomic Energy Research Institute)

1 B 03 POSITIVE MUONS IN AMMONIA

Kubo, M.K. (School of Science, The University of Tokyo)
Nishiyama, K. (High Energy Accelerator Research Organization)

1 B 04 NEGATIVE PION TRANSFER FROM HYDROGEN TO DEUTERIUM IN H₂+D₂ GAS MIXTURES

Shinohara, A., Takamiya, K. (Research Reactor Institute, Kyoto University)
Miura, T. (High Energy Accelerator Research Organization)
Yokoyama, A., Araki, H., Sanada, J. (Graduate School of Science, Osaka University)
Kaneko, T. (Faculty of Science, Niigata University)
Hamajima, Y. (Faculty of Science, Kanazawa University)
Saito, T., Baba, H. (Radioisotope Research Center, Osaka University)
Furukawa, M. (Faculty of Environmental and Information Sciences, Yokkaichi University)

15:00 – 15:30, Wednesday, 13 October

1 B 05 COINCIDENCE DOPPLER SPECTROSCOPY APPLIED TO ORGANO-METALLIC COMPLEXES

Ito, Y. (Research Center for Nuclear Science and Technology, The University of Tokyo)
Suzuki, T. (High Energy Accelerator Research Organization)

1 B 06 POSITRONIUM TRAPPED IN FREE VOLUME HOLES - STUDY OF THE FORMATION IN EXTREME CASES

Goworek, T., Suzuki, T., Kondo, K. (High Energy Accelerator Research Organization)
Hamada, E. (Department of Accelerator Science, The Graduate University for Advanced Studies)
Ito, Y. (Research Center for Nuclear Science and Technology, The University of Tokyo)

[Mössbauer Spectroscopy]

15:30 – 17:00, Wednesday, 13 October

1 B 07 SPIN-CROSSOVER IRON(III) COMPLEX CONTAINING PHOTOISOMERIZATION LIGAND

Einaga, Y., Fujishima, A. (Faculty of Engineering, The University of Tokyo)
Hayami, S., Sato, O. (Kanagawa Academy of Science and Technology)
Kobayashi, Y. (The Institute of Physical and Chemical Research)
Maeda, Y. (Faculty of Science, Kyushu University)

1 B 08 FIRST LIGHT INDUCED EXCITED SPIN STATE TRAPPING FOR IRON(III) COMPLEX

Hayami, S., Sato, O. (Kanagawa Academy of Science and Technology)
Einaga, Y., Fujishima, A. (Faculty of Engineering, The University of Tokyo)

1 B 09 MOLECULAR MAGNETS WITH PHOTOFUNCTIONAL MOLECULAR BUILDING BLOCKS

Hayami, S., Sato, O. (Kanagawa Academy of Science and Technology)
Einaga, Y., Fujishima, A. (Faculty of Engineering, The University of Tokyo)
Ishikawa, Y. (Faculty of Science, Tokyo Science University)
Kai, M. (Faculty of Engineering, Tokyo Institute of Polytechnics)

1 B 10 SOLIDIFICATION OF HAZARDOUS HEAVY METALS WITH SODA-LIME GLASS

Nishida, T., Seto, M. (Faculty of Science, Kyushu University)
Kubuki, S. (Ube National College of Engineering)
Miyaji, O., Ariga, T. (Laboratory for Waste Water Treatment, Kyushu University)
Matsumoto, Y. (Faculty of Engineering, Fukuoka University)

1 B 11 CRYSTALLIZATION BEHAVIOR OF ALUMINATE GLASS INVESTIGATED BY ⁵⁷Fe MÖSSBAUER, XRD AND DTA

Nishida, T., Goto, K. (Faculty of Science, Kyushu University)
Kubuki, S. (Ube National College of Engineering)
Tamaki, T. (Faculty of Science, Ochanomizu University)

1 B 12 ¹⁵¹Eu MÖSSBAUER SPECTRA OF ALUMINATE GLASS AND GLASS CERAMICS

Nishida, T. (Faculty of Science, Kyushu University)
Klencsár, Z., Kuzmann, E., Vértes, A. (Etövös Loránd University, Hungary)

- 1 C 01** INFLUENCE ON THE BEHAVIOR OF TRACE ELEMENTS CAUSED BY ZN DEFICIENCY IN GROWING PERIOD (2)
Yoshida, T., Kamaya, M., Wakasa, H., Ohyama, T., Iwama, M., Yanaga, M., Noguchi, M., Omori, T. (Faculty of Science, Shizuoka University)
- 1 C 02** LICHENS AS ENVIRONMENTAL INDICATORS
Saito, Y. (Master's Program in Science and Engineering, Tsukuba University)
 Kashiwadani, H. (Department of Botany, National Science Museum)
 Ikeda, R., Seki, R. (Department of Chemistry, Tsukuba University)
- 1 C 03** INAA OF URBAN PARTICULATE MATTER IN THE SOUTH OF SAITAMA
 – TEMPERATURE EFFECTS ON [Cl] / [Na] AND [Br] / [Na] –
Sensui, Y., Sasaki, K. (Faculty of Science, Rikkyo University)
 Tomura, K. (Institute for Atomic Energy, Rikkyo University)
- 1 C 04** PHOTON AND NEUTRON ACTIVATION ANALYSES OF INORGANIC ELEMENTS IN VARIOUS MOUSE ORGANS
Hirose, Y. (Graduate School of Natural Sciences and Technology, Kanazawa University)
 Amano, R., Washiyama, K. (Faculty of Medicine, Kanazawa University)
 Haba, H. (Graduate School of Natural Sciences and technology, Kanazawa University)
 Sakamoto, K. (Faculty of Sciences, Kanazawa University)
 Masumoto, K. (High Energy Accelerator Research Organization)

15:00 – 17:00, Wednesday, 13 October

- 1 C 05** APPLICATION OF ARRAY OF GERMANIUM DETECTORS FOR ANALYTICAL CHEMISTRY
Hatsukawa, Y., Hayakawa, T., Toh, Y., Shinohara, N., Oshima, M. (Japan Atomic Energy Research Institute)
- 1 C 06** RAPID SEPARATION AND DETECTION OF C-11 AND ITS APPLICATION TO ACTIVATION ANALYSIS
Masumoto, K., Ito, Y. (High Energy Accelerator Research Organization)
 Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)
 Shikano, K. (NTT)
- 1 C 07** DETERMINATION OF MULTIELEMENTS IN REFERENCE MATERIAL OF TYPICAL JAPANESE DIET BY k_0 -PGA
Matsue, H., Yonezawa, C. (Japan Atomic Energy Research Institute)
- 1 C 08** NEUTRON CAPTURE PROMPT γ -RAY SPECTRA OF BORON THERMALLY DIFFUSED IN SILICON SINGLE CRYSTALS
Kubo, M.K. (School of Science, The University of Tokyo)
 Sakai, Y., Jimbo, M. (Daido Institute and Technology University)
 Yonezawa, C., Matsue, H. (Japan Atomic Energy Research Institute)
- 1 C 09** ELEMENTAL ANALYSIS IN HIGH PURITY Si METAL BY RNAA
Nagamine, T., Oura, Y., Ebihara, M., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
 Komura, K. (Low Level Radioactivity Laboratory, University of Kanazawa)
- 1 C 10** ELEMENTAL ANALYSIS OF METEORITES BY THE COMBINATION OF PHOTON ACTIVATION ANALYSIS AND NEUTRON ACTIVATION ANALYSIS
Setoguchi, M., Oura, Y., Ebihara, M., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
 Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)
- 1 C 11** DETERMINATION OF HALOGENS IN METEORITE AND GEOLOGICAL SAMPLES BY RADIOCHEMICAL PHOTON ACTIVATION ANALYSIS
Latif, Sk.A., Oura, Y., Ebihara, M., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
 Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)

1 C 12 MINOR AND TRACE ELEMENTS DETERMINATION OF FOOD SPICES AND PULSES OF DIFFERENT ORIGINS BY NAA AND PAA

Miyamoto, Y. (Japan Atomic Energy Research Institute)
Sakamoto, K., Nakanishi, T. (Faculty of Science, Kanazawa University)
Zaidi, J.H. (Pakistan Institute of Nuclear Science and Technology, Pakistan)

Thursday, 14 October

[Plenary Session 3]

9:00 – 10:20, Thursday, 14 October

2 R 01 NUCLEAR CHEMISTRY IN JAPAN

Kudo, H. (Faculty of Science, Niigata University)

2 I 01 RADIOPHARMACEUTICAL CHEMISTRY IN PEKING UNIVERSITY (PKU)

Wang, Xiangyun (Peking University, China)

[Plenary Session 4]

14:40 – 16:00, Thursday, 14 October

2 I 02 MODERN NUCLEAR ANALYTICAL TECHNIQUES AND THEIR APPLICATIONS IN CHINA

Chai, Zhifang (Institute of High Energy Physics and Laboratory of Nuclear Analytical Techniques, China)

2 I 03 CENTURY OF RADIOCHEMISTRY: HISTORY AND FUTURE

Myasoedov, B.F. (Vernadsky Institute of Geochemistry and Analytical Chemistry of Russian Academy of Sciences, Russia)

[Plenary Session 5]

16:10 – 17:50, Thursday, 14 October

2 S 01 FRONTIER SCIENCES WITH FUTURE HIGH INTENSITY ACCELERATORS IN JAPAN

Nagamiya, S. (High Energy Accelerator Research Organization)

2 S 02 SUPERHEAVY ELEMENTS WITH THE BERKELEY GAS-FILLED SEPARATOR

Gregorich, K.E. (Lawrence Berkeley Laboratory, USA)

[Isotope Chemistry]

10:30 – 11:15, Thursday, 14 October

2 A 01 A STUDY OF METALLOFULLERENE ENCAPSULATING GROUP 4 AND 5 ELEMENTS, BY MEANS OF RADIOCHEMICAL TECHNIQUE

Akiyama, K., Sueki, K., Kodama, T., Kikuchi, K., Nakahara, H., Katada, M. (Graduate School of Science, Tokyo Metropolitan University)

2 A 02 PRODUCTION OF ¹¹C AND ¹³N LABELED POLYCYCLIC AROMATIC HYDROCARBONS USING NUCLEAR RECOIL REACTION

Ito, Y., Masumoto, K. (High Energy Accelerator Research Organization)
Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)
Shikano, K. (NTT)

2 A 03 UPTAKES OF TRACE ELEMENTS IN ORGANS AND TISSUES OF Zn-DEFICIENT MICE

Ohyama, T., Yoshida, T., Iwama, M., Yanaga, M., Noguchi, M., Omori, T. (Faculty of Science, Shizuoka University)
Hirunuma, R., Enomoto, S. (The Institute of Physical and Chemical Research)

[Actinoid Chemistry]

11:15 – 12:00, Thursday, 14 October

- 2 A 04 DISTRIBUTION EQUILIBRIUM OF URANIUM(VI) BETWEEN SUPERCRITICAL CO₂ CONTAINING TRIBUTYL PHOSPHATE AND NITRIC ACID SOLUTION
Meguro, Y., Yoshida, Z., Iso, S. (Japan Atomic Energy Research Institute)
- 2 A 05 CORRELATION BETWEEN THE CATION EXCHANGE BEHAVIOR AND THE HYDRATION STRUCTURE OF Eu(III) AND Cm(III) IN HYDROCHLORIC ACID-METHANOL SYSTEM
Arisaka, M., Suganuma, H. (Faculty of Science, Shizuoka University)
 Kato, Y., Kimura, T., Yoshida, Z. (Japan Atomic Energy Research Institute)
- 2 A 06 CHEMICAL SEPARATION OF ²⁴⁸Cm FROM OLD ²⁵²Cf NEUTRON SOURCES (1)
Kaji, D., Kaneko, T., Kudo, H. (Faculty of Science, Niigata University)
 Hara, M., Suzuki, Y., Watanabe, M., Mitsugashira, T. (Institute for Materials Research, Tohoku University)

[Luminescence]

13:30 – 14:30, Thursday, 14 October

- 2 A 07 SOME KINDS OF DEFECTS AFFECTING TL-PROPERTIES AND RADIATION-INDUCED PHENOMENA ON QUARTZES
Fujita, H. (Graduate School of Science and Technology, Niigata University)
 Hase, H. (Research Reactor Institute, Kyoto University)
 Hashimoto, T. (Faculty of Science, Niigata University)
- 2 A 08 DEPENDENCE OF ORIGINS AND THERMAL HISTORY ON PROPERTIES OF RADIATION-INDUCED PHENOMENA FROM BURNT RELICS
Nishiyama, E. (Graduate School of Science and Technology, Niigata University)
 Yanagawa, Y., Hashimoto, T. (Faculty of Science, Niigata University)
- 2 A 09 DETERMINATION OF NATURAL RADIOACTIVITIES USING ALPHA LIQUID SCINTILLATION COUNTING COMBINED WITH PULSE TIME INTERVAL ANALYSIS AND ITS APPLICATION
Komatsu, Y. (Graduate School of Science and Technology, Niigata University)
 Saito, Y., Hashimoto, T. (Faculty of Science, Niigata University)
- 2 A 10 DEPENDENCE OF RED THERMOLUMINESCENCE ON GRAIN SIZE OF QUARTZ
Yasuda, K. (Graduate School of Science and Technology, Niigata University)
 Hashimoto, T. (Faculty of Science, Niigata University)

[Mössbauer Spectroscopy]

10:30 – 12:00, Thursday, 14 October

- 2 B 01 ¹²¹Sb MÖSSBAUER SPECTRA OF INTERMETALLIC COMPOUNDS OF M-SB (M = Na, K) SYSTEM
Takahashi, M., Takeda, M. (Faculty of Science, Toho University)
- 2 B 02 ²³⁷Np MÖSSBAUER SPECTRA AND CRYSTAL STRUCTURE OF NH₄[NpO₂(NO₃)₃]
Wang, J., Kitazawa, T., Takeda, M. (Faculty of Science, Toho University)
 Wang, J., Nakada, M., Nakamoto, T., Yamashita, T. (Japan Atomic Energy Research Institute)
- 2 B 03 ¹⁵⁵Gd MÖSSBAUER SPECTRA STUDY ON Zr_{1-x}Gd_xO_{2-x/2} (0.35 ≤ x ≤ 0.55) SOLID SOLUTION
Wang, J., Takeda, M. (Faculty of Science, Toho University)
 Otobe, H., Nakamura, A. (Japan Atomic Energy Research Institute)
- 2 B 04 ¹⁵¹Eu MÖSSBAUER SPECTROSCOPIC STUDY OF ZrO₂-Eu₂O₃ SOLID SOLUTION
Masaki, N., Guillermo, N., Otobe, H., Nakada, M., Nakamura, A. (Japan Atomic Energy Research Institute)
- 2 B 05 MÖSSBAUER SPECTROSCOPIC STUDY ON THE MECHANISM OF IRON SULFIDES FORMATION WITH THE AID OF SULFATE-REDUCING BACTERIA
Onozima, N., Matsuo, M. (Graduate School of Arts and Sciences The University of Tokyo)
 Sugimori, K. (Toho University)
- 2 B 06 In-situ ⁵⁷Fe MÖSSBAUER MEASUREMENTS OF LITHIUM INSERTION MATERIALS FOR LITHIUM-ION BATTERIES
Sakai, Y. (Department of Chemistry, Daido Institute of Technology)
 Ariyoshi, K., Takeda, S., Ohzuku, T. (Faculty of Engineering, Osaka City University)

13:30 – 14:30, Thursday, October 14

- 2 B 07** MÖSSBAUER SPECTROSCOPIC STUDIES OF CHITOSAN-IRON ION
Afroj, D., Katada, M. (Graduate School of Science, Tokyo Metropolitan University)
- 2 B 08** MÖSSBAUER STUDY OF PEROVSKITE OXIDES FOR CO₂ ADSORPTION
Nomura, K. (School of Engineering, The University of Tokyo)
Homonnay, Z. (Etövös Loránd University, Hungary)
Hayakawa, T. (National Institute of Materials and Chemical Research)
- 2 B 09** MÖSSBAUER SPECTROSCOPIC STUDY OF FePS₃-AMINES INTERCALATION COMPOUNDS
Sakai, H., Ukita R., Machida N., Shigematsu T. (Faculty of Science, Konan University)
- 2 B 10** MÖSSBAUER STUDY ON MATRIX-ISOLATED IRON ATOMS AND THEIR REACTION PRODUCTS
Yamada, Y., Katsumata, K., Shimasaki, H., Ono, Y., Yamaguchi, K. (Faculty of Science, Science University of Tokyo)

[Environmental Radioactivity]

10:30 – 12:00, Thursday, 14 October

- 2 C 01** MEASUREMENT OF TRITIUM PRODUCED IN ACCELERATOR TUNNEL (2)
- FOR TRITIUM ENRICHMENT USING HOLLOW FILAMENT POLYIMIDE MEMBRANE
Shimada, A., Morimoto, Y., Iguti, K., Okuno, K. (Faculty of Science, Shizuoka University)
Sasaki, S., Suzuki, T., Kondo, K. (High Energy Accelerator Research Organization)
- 2 C 02** THE DETERMINATION OF TRACE ELEMENTS IN SQUIDS BY INAA/ICP-MS
Kishimoto, T., Kobayashi, Y., Sato, K., Higuchi, H. (Japan Chemical Analysis Center)
Huang, L. (East China Geological Institute, China)
- 2 C 03** DISTRIBUTION OF Cs-137 IN FOREST SOILS :
CORRELATION WITH THE CONTENTS OF ORGANIC CARBON
Takenaka, C. (Graduate School of Bioagricultural Sciences, Nagoya University)
Hamajima, Y. (Faculty of Science, Kanazawa University)
Onda, Y. (College of Natural Sciences, University of Tsukuba)
- 2 C 04** DETERMINATION OF Cl-36 IN SOIL COLLECTED AT THE FORMER SOVIET UNION'S
SEMPALATINSK NUCLEAR TEST SITE.
Tolmachyov, S., Ura, S., Mitarai, S., Momoshima, N., Maeda, Y. (Graduate School of Science, Kyushu University)
Yamamoto, M. (Low Level Radioactivity Laboratory, University of Kanazawa)
- 2 C 05** RELEASE OF POLONIUM TO THE ATMOSPHERE BY MICROBIAL ACTIVITY
Sou, R., Momoshima, N., Maeda, Y. (Graduate School of Science, Kyushu University,)
Osaki, S. (Radioisotope Center, Kyushu University)
- 2 C 06** ANALYTICAL METHOD FOR THE DETERMINATION OF ⁴¹Ca IN CONCRETE SAMPLES
Oikawa, S., Miura, T., Morimoto, T. (Japan Chemical Analysis Center)

13:30 – 14:30, Thursday, 14 October

- 2 C 07** A TEMPORAL INCREASE IN THE ATMOSPHERIC ²¹⁰Pb CONCENTRATION POSSIBLY DUE TO
THE 1991 ERUPTION OF PINATUBO VOLCANO
- AN OBSERVATION AT SEOUL, THE REPUBLIC OF KOREA -
Sato, S., Sato, J. (School of Science and Technology, Meiji University)
Doi, T. (National Institute for Environmental Studies)
- 2 C 08** THE TRANSITION OF SURFACE AIR CONCENTRATION AND DEPOSITION OF ⁷Be AND ²¹⁰Pb IN
OSAKA
Megumi, K., Ito, N., Kiyoda, S. (Research Institute for Advanced Science and Technology, Osaka Prefecture University)
Matsunami, T. (Professor Emeritus of Osaka Prefecture University)

2 C 09 THE ATMOSPHERIC DISTRIBUTION OF ^7Be , ^{10}Be AND ^{210}Pb IN THE PACIFIC AND INDIAN OCEANS

Tada, W., Nagai, H., Kobayashi, T. (College of Humanities and Sciences, Nihon University)
Momoshima, N. (Faculty of Science, Kyushu University)
Murayama, M. (Graduate School of Environmental Earth Science, Hokkaido University)

2 C 10 PRODUCTION RATES OF ^{10}Be AND ^7Be IN THE ATMOSPHERE

Nagai, H., Tada, W., Kobayashi, T. (College of Humanities and Sciences, Nihon University)

Friday, 15 October

[Plenary Session 6]

9:00 – 10:20, Friday, 15 October

3 R 01 PRESENT RESEARCH ON THE ENVIRONMENTAL RADIOACTIVITY AND ITS PERSPECTIVE IN JAPAN

Momoshima, N. (Graduate School of Science, Kyushu University)

3 I 01 RADIOCHEMISTRY IN INDIA - AN OVERVIEW -

Manohar, S.B. (Bhabha Atomic Research Centre, India)

[Biomedical Application of RI]

10:30 – 11:30, Friday, 15 October

3 A 01 A NEW METHOD FOR MEASURING RADICAL SCAVENGING ACTIVITY USING SPIN TRAPPING METHOD – SCAVENGING OF HYDROXYL RADICAL GENERATED BY GAMMA-IRRADIATION WITH A TEA CATECHIN –

Yoshioka, H., Ohashi, Y. (Faculty of Science, Shizuoka University)
Yoshioka, H. (Institute for Environmental Science, University of Shizuoka Prefecture)
Tanaka, Y., Akaboshi, M. (Research Reactor Institute, Kyoto University)

3 A 02 COMPARISON OF PROTECTIVE EFFECTS OF GREEN TEA CATECHINS ON DNA STRAND BREAKS INDUCED BY Co-60 GAMMA RAY AND IRON(II)-CITRATE

Ohashi, Y., Yoshioka, H. (Faculty of Science, Shizuoka University)
Yoshioka, H. (Institute for Environmental Science, University of Shizuoka Prefecture)

3 A 03 BINDING CHARACTERISTICS OF REES TO BIOMOLECULES : STUDY USING ^{14}Ce , ^{160}Tb AND ^{170}Tm

Akaboshi, M., Tanaka, Y., Nakano, Y., Fujii, N. (Research Reactor Institute, Kyoto University)

3 A 04 BIOBEHAVIOR OF MULTITRACER IN BRAIN AND OTHER ORGANS OF BABY AND YOUNG MICE

Tarouda, T. (Graduate School of Natural Science and Technology, Kanazawa University)
Amano, R. (School of Health Sciences, Faculty of Medicine, Kanazawa University)
Sakamoto, K. (Faculty of Science, Kanazawa University)
Enomoto, S. (The Institute of Physical and Chemical Research)

[X-ray Fluorescence Analysis]

11:30 – 11:45, Friday, 15 October

3 A 05 MULTI-ELEMENTAL ANALYSIS IN LICHENS USING X-RAY FLUORESCENCE

Yamaguchi, T. (Master's Program in Environmental Science, University of Tsukuba)
Saito, Y. (Master's Program in Science and Engineering, University of Tsukuba)
Kume, H. (National Institute for Environmental Studies)
Seki, R. (Department of Chemistry, University of Tsukuba)

[Education on Radiation and Radioactivity]

11:45 - 12:15, Friday, 15 October

- 3 A 06** A METHOD OF EDUCATION OF RADIATION RELATED UNITS AND QUANTITIES AND OF BIOLOGICAL EFFECTS OF RADIATION WITH THE INCORPORATION OF CHEMICAL KNOWLEDGE
Asano, T. (Research Institute for Advanced Science and Technology, Osaka Prefecture University)
- 3 A 07** NUCLEAR AND RADIOCHEMISTRY THROUGH SOCIAL EDUCATION
Aratani, M. (Institute of Environmental Science)

[Mössbauer Spectroscopy]

10:30 - 11:00, Friday, 15 October

- 3 B 01** MÖSSBAUER ISOMER SHIFTS OF ^{133}Cs IN METALLIC HOSTS
Yoshikawa, K., Shimomura, H., Ishii, H., Tanaka, E., Muramatsu, H. (Faculty of Education, Shinshu University)
Watanabe, S., Osa, A., Koizumi, I., Sekine, T. (Japan Atomic Energy Research Institute)
Miura, T. (High Energy Accelerator Research Organization)
- 3 B 02** DV- $X\alpha$ CALCULATION OF IODINE COMPOUNDS - COMPARISON WITH I-129 MÖSSBAUER PARAMETERS -
Sakai, H., Segi, T., Machida, N., Shigematsu, T. (Faculty of Science, Konan University)

[Hot Atom Chemistry, Angular Correlation]

11:00 - 12:00, Friday, 15 October

- 3 B 03** APPLICATION OF TDPAC TO METALLOFULLERENES (II)
Sato, W., Sueki, K., Kikuchi, K., Suzuki, S., Achiba, Y., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
Ohkubo, Y. (Research Reactor Institute, Kyoto University)
Ambe, F. (Department of Applied Physics and Chemistry, The University of Electro-Communications)
Asai, K. (The Institute of Physical and Chemical Research)
- 3 B 04** DIFFERENT CRYSTAL CHEMISTRIES OF THE $^{117}\text{Cd} \rightarrow ^{117}\text{In}$ AND $^{111\text{m}}\text{Cd} \rightarrow ^{111}\text{Cd}$ PROBES IN LiNbO_3 AND LiTaO_3 STUDIED BY THE TIME-DIFFERENTIAL PERTURBED-ANGULAR-CORRELATION TECHNIQUE
Ohkubo, Y., Uehara, S., Shibata, S., Kawase, Y. (Research Reactor Institute, Kyoto University)
Murakami, Y., Yokoyama, A. (Graduate School of Science, Osaka University)
Saito, T. (Radioisotope Research Center, Osaka University)
- 3 B 05** STUDIES ON HOT ATOM CHEMICAL BEHAVIOR OF ENERGETIC IONS IN SOLIDS (II) -CHEMICAL BEHAVIOR OF ENERGETIC DEUTERIUM IONS IN SI SINGLE CRYSTAL-
Morimoto, Y., Iguti, K., Shimada, A., Okuno, K. (Faculty of Science, Shizuoka University)
Nakamura, H. (Japan Atomic Energy Research Institute)
- 3 B 06** RECOIL EFFECTS IN WATER-SOLUBLE MACROCYCLIC METAL COMPLEX SYSTEMS (CONTINUED) (IN WATER-SOLUBLE METAL PHTHALOCYANINE SYSTEMS)
Shoji, H. (Department of Chemistry, University of Tsukuba)

[Environmental Radioactivity]

10:30 - 12:00, Friday, 15 October

- 3 C 01** PU-238/PU-239,240 ACTIVITY RATIO IN DEEP-SEA SEDIMENT
Hotta, K., Haque, M.A. (Graduate School of Natural Science and Technology, Kanazawa University)
Nakanishi, T. (Faculty of Science, Kanazawa University)
- 3 C 02** NATURAL RADIONUCLIDE CONCENTRATIONS IN MARINE ORGANISMS ON THE COAST OF MIYAGI PREFECTURE
Ishikawa, Y., Yoshida, N., Ohba, K., Hoshino, K. (Environmental Radioactivity Research Institute of Miyagi)
- 3 C 03** INFLUENCE OF POLYATOIC ION ON THE MEASUREMENT OF PLUTONIUM BY ICP-MS
Kishimoto, T., Isogai, K., Sato, K. (Japan Chemical Analysis Center)
Tonouchi, S. (Niigata Prefectural Research Laboratory for Health and Environment)

- 3 C 04** EFFECT OF AIR LUMINESCENCE COUNTS ON DETERMINATION OF α -EMITTERS BY LIQUID SCINTILLATION COUNTING
Murase, Y., Homma, Y. (Kyoritsu College of Pharmacy)
- 3 C 05** ACTIVATION OF NATURAL MATERIALS BY ENVIRONMENTAL NEUTRONS AND ITS SCIENTIFIC USE (1) NEUTRON INDUCED RADIONUCLIDES DETECTABLE BY EXTREMELY LOW BACKGROUND GAMMA SPECTROMETRY
Komura, K., Yousef, A.M. (Low Level Radioactivity Laboratory, Kanazawa University)
- 3 C 06** ACTIVATION OF NATURAL MATERIALS BY ENVIRONMENTAL NEUTRONS AND ITS SCIENTIFIC USE (2) EVALUATION OF ENVIRONMENTAL NEUTRONS BY ACTIVATION OF GOLD
Komura, K., Yousef, A.M. (Low Level Radioactivity Laboratory, Kanazawa University)

Poster Session

13:30 – 15:30, Friday, 15 October

[Activation Analysis, Nuclear Chemistry, Actinoid Chemistry]

- 3 P 01** EXTRACTABLE ORGANOHALOGENS (EOX) IN SEDIMENT AND ORGANISMS COLLECTED AT A FORMER CHLORALKALI FACILITY
Kawano, M., Wakimoto, T. (Faculty of Agriculture, Ehime University)
 Kannan, K., Giesy, J.P. (Institute of Environmental Toxicology, Michigan State University, USA)
 Kashima, Y., Matsui, M. (School of Medicine, Yokohama City University)
- 3 P 02** DISTRIBUTION OF ELEMENTS IN CELL FRACTION OF SELENIUM-DEFICIENT RAT LIVER
Matsumoto, K., Ueda, Y., Urata, H., Endo, K. (Department of Physical Chemistry, Showa College of Pharmaceutical Sciences)
 Hirunuma, R., Enomoto, S., Ambe, S., Ambe, F. (The Institute of Physical and Chemical Research)
- 3 P 03** PROMPT GAMMA RAY ANALYSIS OF RATS
Oura, Y., Enomoto, S., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
- 3 P 04** DETERMINATION OF CARBON AND NITROGEN IN THIN FILMS ON SILICON SUBSTRATES BY NON-DESTRUCTIVE PHOTON ACTIVATION ANALYSIS
Shikano, K., Kato, M. (NTT Photonics Labs.)
 Masumoto, K. (High Energy Accelerator Research Organization)
 Ohtsuki, T. (Laboratory of Nuclear Science, Tohoku University)
- 3 P 05** THE DETERMINATION OF MN AND V IN IRON SAMPLES CONTAINING CONSIDERABLE AMOUNTS OF MN BY INAA
 Tomura, K., Tomuro, H. (Institute for Atomic Energy, Rikkyo University)
- 3 P 06** RARE EARTH ELEMENT CONCENTRATIONS IN MATURE AND DEVELOPING LEAVES OF FERN COLLECTED FROM THE SAME SITE
Takada, J., Nishimura, K., Tanaka, Y., Fujii, N., Akaboshi, M. (Research Reactor Institute, Kyoto University)
 Nishimura, K. (University Forests, Kyoto University)
- 3 P 07** STUDIES ON BEHAVIOR OF TRACE ELEMENTS IN SEDIMENT AND PORE WATER OF LAKE BIWA BY NEUTRON ACTIVATION ANALYSIS
Kojima, S. (Radioisotope Research Center, Aichi Medical University)
 Oda, H., Nakamura, T. (Dating and Materials Research Center, Nagoya University)
 Takada, J. (Research Reactor Institute, Kyoto University)
 Yokota, K. (Lake Biwa Research Institute)
 Furukawa, M. (Faculty of Environment and Information Sciences, Yokkaichi University)
- 3 P 08** PERFORMANCE OF ACCELERATOR MASS SPECTROMETER AND ITS APPLICATION TO THE STUDY ON ISOTOPE GEOCHEMISTRY
Hama, K., Xu, S. (Japan Nuclear Cycle Development Institute)
- 3 P 09** ELECTRONIC STRUCTURE OF RUTHERFORDIUM NITRATE
Hirata, M., Bastug, T., Nagame, Y. (Japan Atomic Energy Research Institute)

- 3 P 10** ON-LINE ISOTOPE SEPARATION OF UNSTABLE LIGHT-ELEMENT NUCLIDES(2)
Osa, A., Sekine, T., Koizumi, M. (Japan Atomic Energy Research Institute)
- 3 P 11** HALF-LIFE OF TECHNETIUM-98
Kobayashi, T. (College of Humanities and Sciences, Nihon University)
 Sueki, K., Ebihara, M., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
- 3 P 12** GAS CHROMATOGRAPHIC BEHAVIOR OF TUNGSTEN COMPOUNDS
Kaneko, T., Kimura, S., Kudo, H. (Faculty of Science, Niigata University)
- 3 P 13** ANGULAR MOMENTUM OF FISSION FRAGMENT IN PROTON-INDUCED FISSION OF LIGHT ACTINOIDES
Goto, S., Kaji, D., Kudo, H. (Faculty of Science, Niigata University)
 Fujita, M., Shinozuka, T., Fujioka, M. (Cyclotron Radioisotope Center, Tohoku University)
- 3 P 14** ANOMALOUS EXCITATION FUNCTION OF MASS AND KINETIC ENERGY DISTRIBUTIONS IN PROTON-INDUCED FISSION OF LIGHT ACTINIDES
Nishinaka, I., Nagame, Y., Tsukada, K., Asai, M., Ichikawa, S. (Japan Atomic Energy Research Institute)
 Goto, S. (Graduate School of Science and Technology, Niigata University)
 Tanikawa, M. (School of Science, The University of Tokyo)
 Zhao, Y., Nakahara, H. (Graduate School of Science, Tokyo Metropolitan University)
- 3 P 15** CORRELATION BETWEEN THE KINETIC AND EXCITATION ENERGIES OF FISSION FRAGMENTS FOR $^{233}\text{U}(\text{n}_{\text{th}},\text{f})$
Takamiya, K., Shinohara, A., Nakagome, Y. (Research Reactor Institute, Kyoto University)
 Araki, H., Sanada, J., Toyoshima, A., Yokoyama, A., Takahashi, N., Baba, H. (Graduate School of Science, Osaka University)
 Saito, T. (Radioisotope Research Center, Osaka University)
- 3 P 16** STUDIES OF FRAGMENTATION IN PHOTONUCLEAR REACTIONS AT INTERMEDIATE ENERGIES
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 Washiyama, K. (Faculty of Medicine, Kanazawa University)
 Haba, H., Miyamoto, Y. (Japan Atomic Energy Research Institute)
 Oura, Y. (Graduate School of Science, Tokyo Metropolitan University)
 Shibata, S. (Research Reactor Institute, Kyoto University)
 Fujiwara, I. (Faculty of Economics, Otemon-Gakuin University)
 Furukawa, M. (Faculty of Environmental and Information Science, Yokkaichi University)
 Nagai, H., Kobayashi, T. (College of Humanities and Sciences, Nihon University)
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- 3 P 17** RADIOCHEMICAL STUDY OF PHOTOSPALLATION ON HEAVY TARGETS AT INTERMEDIATE ENERGIES
Yamashita, M., Yoshida, K., Terada, Y., Nagano, A., Kawashima, Y., Osada, D., Matsumura, H., Sakamoto, K. (Faculty of Science and Graduate School of Natural Science and Technology, Kanazawa University)
 Haba, H., Miyamoto, Y. (Japan Atomic Energy Research Institute)
 Washiyama, K. (Faculty of Medicine, Kanazawa University)
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 Shibata, S. (Research Reactor Institute, Kyoto University)
 Fujiwara, I. (Faculty of Economics, Otemon-Gakuin University)
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- 3 P 18** RADIOCHEMICAL STUDIES OF THE PHOTOFISSION REACTIONS ON ^{197}Au AND ^{209}Bi AT INTERMEDIATE ENERGIES
Haba, H. (Japan Atomic Energy Research Institute)
 Igarashi, M., Kasaoka, M., Kikunaga, H., Sakamoto, K. (Faculty of Science, Kanazawa University)
 Matsumura, H., Yamashita, M., Sakamoto, K. (Graduate School of Natural Science and Technology, Kanazawa University)
 Washiyama, K. (Faculty of Medicine, Kanazawa University)
 Oura, Y. (Graduate School of Science, Tokyo Metropolitan University)
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- 3 P 19** RADIOCHEMICAL STUDY OF LIGHT NUCLEI-PRODUCTION IRRADIATING WITH LOW-ENERGY BREMSSTRAHLUNG BEAMS
Washiyama, K. (School of Health Sciences, Faculty of Medicine, Kanazawa University)
 Matsumura, H., Sakamoto, K. (Graduate School of Natural Science and Technology, Kanazawa University)
 Haba, H., Miyamoto, Y. (Japan Atomic Energy Research Institute)
 Oura, Y. (Graduate School of Science, Tokyo Metropolitan University)
 Shibata, S. (Research Reactor Institute, Kyoto University)
 Furukawa, M. (Faculty of Environmental and Information Science, Yokkaichi University)
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- 3 P 20** SPACIATION OF Cm(III) AND LANTHANIDES(III) IN AQUEOUS NITRATE SOLUTIONS BY XAFS
Yaita, T., Narita, H., Suzuki, S., Tachimori, S. (Japan Atomic Energy Research Institute)
 Edelstein, N.M., Shuh, D.K., Bucher, J.J., Rao, L. (Lawrence Berkeley National Laboratory, USA)
 Allen, P.J. (Lawrence Livermore National Laboratory, USA)

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- 3 P 21** CHARACTERIZATION OF RADIOACTIVE AEROSOLS FORMED IN AIR OF A HIGH-ENERGY PROTON ACCELERATOR TUNNEL (II)
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 Endo, A. (Japan Atomic Energy Research Institute)
- 3 P 22** CHEMICAL FORMS OF GASEOUS ^{13}N INDUCED IN AIR OF A HIGH-ENERGY PROTON ACCELERATOR TUNNEL
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- 3 P 23** STUDY OF RADIOACTIVITIES FOR INTERNAL EXPOSURE AROUND THE HIGH ENERGY ACCELERATOR FACILITIES
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- 3 P 24** CALIBRATION OF BEAM INTENSITY MONITORS USING ACTIVATION METHOD
Numajiri, M., Miura, T., Oki, Y., Suzuki, T., Kondo, K. (High Energy Accelerator Research Organization)
- 3 P 25** IMAGING TECHNIQUE FOR THE MEASUREMENT OF NEUTRON DISTRIBUTION IN ACCELERATOR ROOM
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- 3 P 26** CONCENTRATION OF RADIONUCLIDES INDUCED IN SOIL BELOW THE EAST COUNTER HALL IN KEK
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- 3 P 30** BIOTURBATION AND RADIONUCLIDE DISTRIBUTIONS IN SEDIMENT
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- 3 P 34** SEDIMENTATION RATE OF LAKE BAIKAL FROM ^{210}Pb CONTENTS AND ^{137}Cs CONCENTRATIONS
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- 3 P 37** MEASUREMENT OF THE EXCITATION FUNCTION FOR THE $^{186}\text{W}(d,2n)^{186}\text{Re}$ NUCLEAR REACTION: PRODUCTION OF NO-CARRIER-ADDED ^{186}Re
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- 3 P 39** DETERMINATION OF INORGANIC ELEMENTS IN JAPANESE STANDARD SOIL MATERIALS BY MEANS OF INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS
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 Endo, K. (Showa College of Pharmaceutical Sciences)
 Yanaga, M. (Faculty of Science, Shizuoka University)
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- 3 P 40** STUDY ON COMPETITION BETWEEN UPTAKE OF IONS IN PLANTS
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- 3 P 50** ^{155}Gd MÖSSBAUER SPECTRA AND CRYSTAL STRUCTURES OF Gd(III)-EDTA COMPLEXES
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- 3 P 51** ^{57}Fe AND ^{121}Sb MÖSSBAUER SPECTROSCOPIC STUDIES ON SB-FE BONDS IN $\text{Fe}(\text{CN})_5 \cdot \text{Sb}(\text{C}_6\text{H}_5)_3]^{n-}$ (n=2,3)
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- 3 P 52** ^{121}Sb MÖSSBAUER SPECTRA OF THE COMPOUNDS WITH Sb = Sb DOUBLE BOND
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 Sasamori, T., Tokitoh, N. (Institute for Fundamental Research of Organic Chemistry, Kyushu University)
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- 3 P 55** ^{237}Np MÖSSBAUER SPECTROSCOPIC STUDIES OF Np(V) AND Np(VI) SPECIES IN FROZEN NITRIC ACID SOLUTIONS
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- 3 P 56** VALENCE DELOCALIZATION AND CRYSTAL STRUCTURE OF $[\text{Fe}_3\text{O}(\text{paza})_6(\text{py})_3] \cdot 3\text{py}$
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- 3 P 57** MÖSSBAUER SPECTRA OF TETRAETHYLAMMONIUM HEXACYANOFERRATE(III)
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- 3 P 58** DV- X_α CALCULATION OF M_xTiS_2 INTERCALATION COMPOUNDS
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- 3 P 62** FUEL FAILURE DETECTION IN A POOL-TYPE NUCLEAR REACTOR (FFD)
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- 3 P 66** MEASUREMENT OF ENVIRONMENTAL ^{32}Si BY ULTRA LOW BACKGROUND BETA-RAY
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