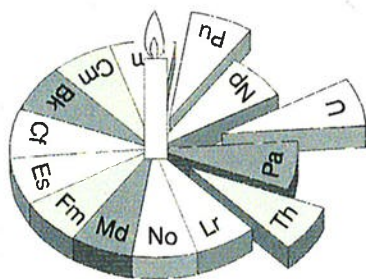


G. H. Lander



Silver jubilee



1 8 9 6 - 1 8 9 8

C E N T E N A I R E

D E L A D E C O U V E R T E

D E L A R A D I O A C T I V I T E

1 9 9 6 - 1 9 9 8

27èmes Journées des Actinides



Dijon
(FRANCE)
April, 26-29, 1997

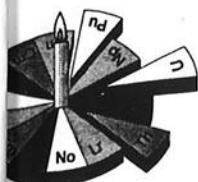
Organized by : Th. Thévenin & J. Aupiais



Valduc &



Bruyères-le-Châtel



50th Jubilee



*27^{èmes} Journées des Actinides
April 26-29, 1997, Dijon, France*



1896 - 1996
CENTENAIRE
DE LA DECOUVERTE
DE LA RADIOACTIVITE
1996 - 1998

**Palais des Congrès
Dijon, France**

PROGRAMME DEFINITIF

ET

RESUMES

FINAL PROGRAM

AND

ABSTRACTS

Remerciements
Acknowledgments

Nous tenons à remercier chaleureusement toutes celles et tous ceux qui nous ont aidé à l'organisation de ces 27^{èmes} Journées des Actinides.

We would like to thank everyone who helped us in organizing the 27^{èmes} Journées des Actinides.

Alain Gourod, Directeur du Centre de Valduc

et Chantal Basiletti, Lionel Belatrech, Johan Coisy, Jean-Pierre Copréau, Jacqueline de Dave, Michaël Descottes, Sylviane Devaud, Christian Enselme, Jean-Marc Fournier, Dominique Gautier, Michel Genet, Hervé Guennec, Georgette Hennick, Yves Héry, Dominique Hézard, Cyril Kolly, Muriel Laurençot, Jean-Pierre Papet, Gilbert Pescayre, Louis Proudhon, Martial Richard, Jean-Louis Truffier, Claude Vengeon, Michèle Vion.

Le Comité d'Organisation des 27 JdAn

Thierry Thévenin, Jean Aupiais, Didier Dall'ava, Claire Boullier et Christine Petit

**MESSAGE DE
BIENVENUE DES
ORGANISATEURS**

**WELCOME ADDRESS
FROM THE CO-
ORGANIZERS**

Le Commissariat à l'Energie Atomique (C.E.A.), représenté conjointement par le Centre de Valduc (Département de Recherche sur les Matériaux Nucléaires) et le Centre de Bruyères-le-Châtel (Département Analyse Surveillance Environnement), est heureux d'accueillir à Dijon les 27^{èmes} Journées des Actinides. L'année 1997 correspond au 25^{ème} anniversaire de cette rencontre informelle née, en 1972, à Grenoble, France, puis organisée par l'Allemagne (4 fois), l'Autriche (1), le Belgique (3), la France (7), Israël (1), l'Italie (3), la Pologne (1), le Portugal (1), la République Tchèque (1), le Royaume-Uni (1), la Suède (1) et la Suisse (2). Cette année, le programme scientifique proposé rassemble près de 90 communications sur les thèmes suivants : propriétés électroniques et magnétiques des composés d'actinides, études physico-chimiques en solution et à l'état solide, actinides et environnement, calculs théoriques de structure électronique et spectroscopie des éléments 5f.

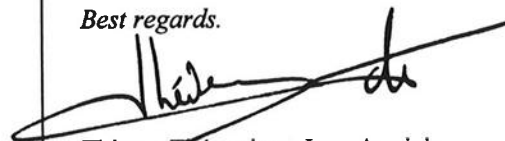
Le Comité d'Organisation se joint à nous pour vous souhaiter la bienvenue à Dijon et aux 27 JdAn. Nous vous souhaitons une excellente conférence et un agréable séjour dans la Capitale de « Ducs de Bourgogne ».

Cordialement.

The Commissariat à l'Energie Atomique (C.E.A.), represented jointly by the Centre de Valduc (Département de Recherche sur les Matériaux Nucléaires) and the Centre de Bruyères-le-Châtel (Département Analyse Surveillance Environnement), is pleased to host at Dijon the 27th Journées des Actinides. The year 1997 corresponds to the 25th anniversary (Silver Jubilee) of this informal meeting born in 1972 in Grenoble, France, and hosted in Austria (1 issue), Belgium (3), Czech Republic (1), France (7), Germany (4), Israël (1), Italy (3), Poland (1), Portugal (1), Sweden (1), Switzerland (2) and United Kingdom (1). This year, the scientific program gathers around 90 contributions on : the electronic and magnetic properties of actinide compounds, the solution and solid state chemical properties, the actinides and the environment, the theoretical calculations on electronic structure and the 5f elements spectroscopy.

The Organizing Committee and us welcome you to Dijon and the 27 JdAn. We wish you an excellent conference and a pleasant stay in the Capital of the « Great Dukes of the West ».

Best regards.



Thierry Thévenin et Jean Aupiais
Co-Présidents des 27 JdAn.

COMMANDITAIRES

SPONSORS

Commissariat à l'Energie Atomique (C.E.A.)
Centre de Valduc

Conseil Régional de Bourgogne

Amersham-France

Sa / Sa 26/04		Di / Su 27/04		Lu / Mo 28/04		Ma / Tu 29/04
	8.30	Message de bienvenue <i>Welcome Address</i>	8.30	Radioactivité et Histoire <i>Radioactivity and History</i>	8.30	Systemes dilués à électrons f <i>Diluted f-Electrons Systems</i>
	8.50	Rétrospective JdAn <i>JdAn in Retrospective</i>	9.00	Propriétés électroniques <i>Electronic Properties</i>		P. MONACHESI
	9.20	Métaux et alliages <i>Metals and Alloys</i>			10.10	
		G.H. LANDER		D. KACZOROWSKI		
	10.40	Pause-Café <i>Coffee Break</i>	10.40	Pause-Café <i>Coffee Break</i>	10.40	Thermodynamique et Chimie en solution <i>Thermodynamics and Solution Chemistry</i>
	11.10	Propriétés magnétiques <i>Magnetic Properties</i>	11.10	Techniques avancées <i>Advanced Techniques</i>		M. BEAUVY
		L. HAVELA		J.C. KRUPA		
	12.30	Déjeuner <i>Lunch</i>	12.30	Déjeuner <i>Lunch</i>	12.20	Conclusions <i>Conclusive Remarks</i>
	14.00	Diffusion X magnétique <i>X-Ray Magnetic Scattering</i>	14.30	Brèves d'affiches PC2 <i>Poster clips PC2</i>	13.00	Déjeuner <i>Lunch</i>
		P. BURLET		A.V. ANDREEV		
15.00 - 19.30	15.20	Chimie de l'état solide <i>Solid State Chemistry</i>	15.50	Pause-Café <i>Coffee Break</i>		
		H. NITSCHKE				
	16.40	Pause-Café <i>Coffee Break</i>	16.20	Session Affiches P2 <i>Poster Session P2</i>		
	17.10	Complexes d'actinides <i>Actinide Complexes</i>		A.V. ANDREEV		
Registration	18.10	Brèves d'affiches PC1 <i>Poster clips PCI</i>	18.30	Transfert vers Beaune <i>Transfer to Beaune</i>		
		C. MADIC				
19.30-23.00 Buffet de Bienvenue <i>Welcome Buffet</i>	19.30	Dîner <i>Dinner</i>	19.30	Repas de Gala <i>Conference Dinner</i>		
	21.00	Session Affiches P1 <i>Poster Session P1</i>				
		C. MADIC				

Samedi / Saturday
26 Avril / April 26

Hôtel Mercure - Clémenceau (Hall)

15.00 - 19.30 : Accueil des participants / *Registration*

19.30 - 22.30 : Buffet de bienvenue / *Welcome Buffet*

Dimanche / Sunday
27 Avril / April 27

Palais des Congrès (Salle Morey-Saint-Denis)

8.30 - 8.50 : Message de bienvenue / *Welcome Address*
Th. Thévenin, J. Aupiais

8.50 - 9.20 : Rétrospective JdAn / *JdAn in Retrospective*
An Actinide System with Life Greater than 25 Years
J.-M. Fournier

Session orale O1 / Oral Session O1

Métaux et alliages / Metals and Alloys

Président / Chairperson : G.H. Lander

9.20 : Electronic Structure of δ -Pu
O. Eriksson

9.40 : Electron Localization in the Series of Actinide Metals.
The cases of δ -Pu and Es
M. Pénicaud

10.00 : An Evidence of the Role of the f Electrons for Some
Pure Liquid Lanthanide (Ce) and Actinides (Th and U)
M. Boivineau, J.M. Vermeulen and Th. Thévenin

10.20 : Lattice Collapse Around Gallium in PuGa Alloys as
Revealed by X-Ray Absorption Spectroscopy (XAS)
**N. Richard, Ph. Faure, P. Rofidal, J.L. Truffier
and D. Bazin**

10.40 - 11.10 : Pause-café / *Coffee Break*

Session orale O2 / Oral Session O2

Propriétés magnétiques / Magnetic Properties

Président / Chairperson : L. Havela

11.10 : Magnetoelastic and Magnetic Properties of β -UH₃
**A.V. Andreev, S.M. Zadvorkin, M.I. Bartashevich,
T. Goto, J. Kamarad, Z. Arnold and H. Drulis**

Dimanche / Sunday
27 Avril / April 27
(Suite / Continued)

- 11.30 : Mysterious Low-Temperature Magnetic Behavior of Single-Crystalline UGa_3
D. Kaczorowski, P.W. Klamut and A. Czopnik
- 11.50 : Moment Collapse in $U_3M_2M'_3$, $M = Al, Ga$; $M' = Si, Ge$
P. Rogl, G. André and H. Noël
- 12.10 : The Magnetic Structure of $U(In_{1-x}Sn_x)_3$
S. Cottenier, J. Meersschaut, S. Demuyneck, B. Swinnen and M. Rots

12.30 - 14.00 : Déjeuner / Lunch

Session orale O3 / Oral Session O3

Diffusion X magnétique / X-Ray Magnetic Scattering

Président / Chairperson : **P. Burlet**

- 14.00 : Resonant X-Ray Magnetic Scattering from UAs-USE Solid Solutions
E. Lidström, M.J. Longfield, W.G. Stirling, G.H. Lander and A. Stunault
- 14.20 : Orbital and Spin Moments in Uranium Compounds from X-Ray Magnetic Circular Dichroism (XMCD)
P. Dalmas de Réotier, J.P. Sanchez, A. Yaouanc, A. Finazzi, Ph. Saintavit, G. Krill, J.P. Kappler, J. Goedkoop, J. Goulon, A. Rogalev and O. Vogt
- 14.40 : X-Ray Resonant Magnetic Scattering from Neptunium Sulphide
D. Mannix, W.G. Stirling, S. Langridge, G.H. Lander and J. Rebizant
- 15.00 : Attempts to Perform Resonant X-Ray Magnetic Scattering on Pu Compounds
G.H. Lander, W.G. Stirling, D. Mannix, S. Langridge, W. Nuttall, M. Longfield and J. Rebizant

Session orale O4 / Oral Session O4

Chimie de l'état solide / Solid State Chemistry

Président / Chairperson : **H. Nitsche**

- 15.20 : Ligands Coordination Types in Neptunyl(V) Compounds
M.S. Grigoriev

Dimanche / Sunday
27 Avril / April 27
(Suite / Continued)

- 15.40 : Covalent Bonding in Neptunium Heptavalent Compounds
J. Jové, J. Gal, M. Pagès and W. Potzel
- 16.00 : Studies on New Oxide Compounds of Actinides (Actinides = U, Np, Pu, Am and Cm)
M. Beauvy, N. Cocuau, T. Duverneix, C. Berlanga, R. Mazoyer and C. Duriez
- 16.20 : Physical and Chemical Properties of a New Thorium Phosphate. Leaching Studies of Thorium Phosphate Solid Solutions (U^{4+} , Ce^{4+})
M. Genet, N. Dacheux, V. Brandel, R. Podor, J.F. Le Dû and B. Chassigneux

16.40 - 17.10: Pause-café / *Coffee Break*

Session orale O5 / *Oral Session O5*

Complexation des actinides / Actinides Complexation

Président / *Chairperson* : Ph. Moisy

- 17.10 : Novel Organouranium Complexes Containing the Potentially Chelating or Metal Bridging Ligand $\{(CH_2C_5H_4)_2-2,6-C_5H_3N\}^{2-}$
G. Paolucci, R.D. Fischer and A. Borsato
- 17.30 : Heterobimetallic f-d Chemistry : an Unexpected Structural Change Related to the Presence of an Uranium Center
D. Baudry, A. Dormond, P. Desmurs, M. Visseaux and F. Nief
- 17.50 : Photolytic Resistance and Complexing Properties Towards Uranyl Ion of the Siderophore Pyoverdine
M. Bouby, I. Billard, H.J. Maccordick and I. Rossini

18.10 - 19.30 : **Brèves d'affiches PC1 / Poster Clips PC1**
Président / *Chairperson* : C. Madic

- P1.1 X-ray Investigation of the U-Nd-Au-Si Alloys
P.S. Salamakha
- P1.2 Structural Chemistry of New Quaternary Germanides of Uranium
O.L. Sologub

Dimanche / Sunday
27 Avril / April 27
(Suite / Continued)

- P1.3 (Sr,U)-Containing Zirconolite-Rich Sintered Ceramics Study. Comparison with Hot-Pressed and Inductively-Melted Specimens
S.V. Stefanovsky, S.V. Ioudintzev, B.I. Omelianenko, and A.V. Mokhov
- P1.4 A Study of the Behavior of 5f-Elements in the $\text{LiI-Prl}_2\text{-Prl}_3$ System
S.A. Kulyukhin, N.B. Mikheev, I.A. Rumer, and M.Z. Kazakevich
- P1.5 Experience in Modeling and Dissolution of the High Burnup Fast Breeder Reactor Uranium-Oxide Fuel
E.V. Renard, L.L. Zaitseva, O.S. Korostin, S.V. Shepelkov, A.V. Veliehko and I.V. Vinogradov
- P1.6 « Hot-lab » Experience on the Hydrometallurgical Mutual Separation and Conditioning of Three-Valence Transplutonium and Rare Earth Elements
E.V. Renard and V.B. Pavlovich
- P1.7 Synthesis and Crystal Structures of Novel Neptunium(V) and Neptunium(VI) Complex Molybdates
M.S. Grigoriev, A.A. Bessonov, N.A. Budentseva, A.M. Fedoseev and T.S. Lapitskaya
- P1.8 Study of the Lattice Parameter Evolution of Irradiated $\text{UO}_2\text{-PuO}_2$ Fuel Due to Self Radiation Damages
B. Clavier, D. Damien, F. Couvreur, P. Combette, Y. Gourel de St Pern and P. Blampain
- P1.9 Identification of Phases in Corium Held at High Temperature in a Tungsten Crucible by SEM, EPMA and EBSD
B. Schneider, C. Bouchet, P. Perodeaud, O. Dugne, A. Maurizi, F. Valin, C. Guéneau and G. Bordier
- P1.10 Crystal Structure, Chemical and Physical Properties of $\text{UO}_2(\text{H}_2\text{AsO}_4)_2\text{H}_2\text{O}$
T.M. Gesing
- P1.11 The System Thorium-Palladium-Boron
H. Flandorfer, A. Leithe-Jasper, P. Rogl and M. Bohn

Dimanche / Sunday
27 Avril / April 27
(Suite / Continued)

- P1.12 Synthesis, Crystallographic Study and Characterization of Solid-Solutions of U(IV), Ce(IV) and Zr(IV) Based on Thorium Phosphate-Diphosphate
N. Dacheux, R. Podor, J.F. Le Dû, V. Brandel and M. Genet
- P1.13 Stability of Double Carbonate of Ammonium and Plutonoyl : $\text{NH}_4\text{PuO}_2\text{CO}_3$
I.G. Tananaev, N.A. Budentseva and A.M. Fedosseev.
- P1.14 Impurities Effects on the Mechanical Properties and the Structure of the U-0.2 % V Alloys
C. Thiebaut, C. Bonnet and J.M. Morey.
- P1.15 Directional Properties of Thermal Expansion Coefficients for Alpha-U through Phase Transitions
J.C. Marmeggi, B.J. Hattink and G.H. Lander
- P1.16 Melting of Cerium and Uranium at High Static Pressures
B. Sitaud and Th. Thévenin.
- P1.17 Thermal Expansion and Electrical Resistivity of UNi_2Si_2 Single Crystal under High Pressure
F. Honda, T. Kagayama, G.Oomi, A.V. Andreev, V. Sechovsky, L. Havela, M.I. Bartashevich, T. Goto, and A.A. Menovsky
- P1.18 Magnetic Phases in UNiGa under Pressure.
F. Honda, K.Prokes, G.Oomi, T.Kagayama, A.V. Andreev, V. Sechovsky, L. Havela and E. Brück
- P1.19 Physical Properties Measurements at ITU-Karlsruhe : Development and Results
E. Wastin, E. Bednarczyk, E. Gomez-Marin, V. Ichas, P. Lefèbvre, J. Rebizant, C. Rijkeboer, J.C. Spirlet, S. Zwirner and G.H.Lander
- P1.20 Electrical Resistivity of the Solid Solution $\text{U}_{1-x}\text{Y}_x\text{Cu}_2\text{Si}_2$: $x=0, 0.5, 0.875, 1$
K. Hiebl
- P1.21 On the 17.5 K Phase Transition in URu_2Si_2 : How to Test the Presence of a Quadrupolar Order Parameter.
P. Santini, G. Amoretti and S.B. Oseroff

Dimanche / Sunday
27 Avril / April 27
(Suite / Continued)

- P1.22 Neutron Inelastic Scattering on Single Crystals of UGa_3
P. Dervenagas, G.H. Lander, D. Kaczorowski, R. Troc,
A. Czopnik and J. Bossy
- P1.23 X-Ray Diffraction Studies of PuBi Under Pressure
Y. Méresse, S. Heathman and C. Rijkeboer
- P1.24 Solid Solution Studies of the $U_4T_7X_6$ Phase
E.J. Higgins, S. Heathman, Y. Meresse, J. Rebizant,
and F. Wastin

Hôtel Mercure - Clémenceau (Salon)

19.30 - 21.00 : Dîner / Dinner

Palais des Congrès (Foyer)

21.00 - 23.00 : **Session affiches P1 / Poster Session P1**
Président / Chairperson : **C. Madic**

Lundi / Monday
28 Avril / April 28

Palais des Congrès (Salle Morey-Saint-Denis)

8.30 - 9.00 : The Early Days of the Radioactivity : The
Becquerel's Discovery and the Curies' Breakthrough
M. Genet

Session orale O6 / Oral Session O6

Propriétés électroniques / Electronic Properties

Président / Chairperson : **D. Kaczorowski**

- 9.00 : Optical and Magneto-Optical Studies of UFe_2
M. Kucera, P. Berankova, M. Matyas and I. Tichy
- 9.20 : Electronic, Optical and Magnetic Investigation on
 $URhSi$
F. Canepa, M.L. Fornasini, **F. Marabelli**, P.
Monachesi and G.B. Parravicini
- 9.40 : Electronic and Optical Properties of $LaRu_2Si_2$ and
 URu_2Si_2
J. Schoenes, J. Lammers, K. Litfin, M.S.S. Brooks
and **P. Monachesi**

Inelastic Scattering on Single Crystals
M. Nagas, G.H. Lander, D. Kaczmarski and J. Bossy

Neutron Diffraction Studies of PuBi
S. Heathman and C. Rijksen

Neutron Scattering Studies of the $U_4T_7X_6$ Compounds
S. Heathman, Y. Meunier and J. L. Van Hemmen

Salon (Salon)

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Affiches P1 / Poster Session
Président / Chairperson : C. Madic

(Salle Morey-Saint-Denis)

Days of the Radioactivity
Discovery and the Curie
Prize

Session O6
/ Electronic Properties
Président / Chairperson :
D. Kaczorowski

and Magneto-Optical Studies
of Actinides
P. Berankova, M. Matyjaszewski

Electronic, Optical and Magnetic
Properties of Actinides

Properties of Actinides
M.L. Fornasini, F. Maraschese and G.B. Parravicini

Electronic and Optical Properties of
Actinides
J. Lammers, K. Litfin, J. Monachesi

10.00 : From Electrical Measurements of $NpPt_3$ to its Possible Heavy Fermion Behavior
M. Amanowicz, C. Ayache, J. Rebizant and J.C. Spirlet

10.20 : Mössbauer Observation of Reversible and Non-Reversible Phenomena in Actinide Systems
J. Gal, I. Halevy, J. Jové, M. Pagès and W. Potzel

10.40 - 11.10 : Pause-café / Coffee Break

Session orale O7 / Oral Session O7

Techniques avancées / Advanced technics

Président / Chairperson : J.C. Krupa

11.10 : Quantitative Analysis of Impurities in Uranium by Laser Ablation Inductively Coupled Plasma Mass Spectrometry
C. Leloup, P. Marty, D. Dall'Ava and M. Perdereau

11.30 : Resonance Photoelectron Spectroscopy of Actinides Using a Tunable Laser Plasma Light Source
J.J. Joyce, A.J. Arko and L.E. Cox

11.50 : Thin Layers in Actinide Research
T. Gouder

12.10 : Use of High Gradient Magnetic Separation for Soil and Liquid Waste Decontamination
L.R. Avens, L.A. Worl, D.D. Padilla, F. Coyne Prenger and D.D. Hill

12.30 - 14.30 : Déjeuner / Lunch

Palais des Congrès (Salle Morey-Saint-Denis)

14.30 - 15.50 : **Brèves d'affiches PC2 / Poster Clips PC2**
Président / Chairperson : A.V. Andreev

P2.1 Theoretical Interpretation of the Magnetic Behavior of the Dense Kondo Compounds $CeCu_{5-x}Al_x$ ($x = 0, 1, 2$)
G. Amoretti, L.C. Andreani, E. Bauer, B. Delley, R. Monnier, E. Pavarini and P. Santini

P2.2 Magnetic Properties of $UFeGe$
L. Havela, A. Kolomiets, V. Sechovsky and M. Divis

Lundi / Monday
28 Avril / April 28
(Suite / Continued)

10.00 : From Electrical Measurements of NpPt_3 to its Possible Heavy Fermion Behavior
M. Amanowicz, C. Ayache, J. Rebizant and J.C. Spirlet

10.20 : Mössbauer Observation of Reversible and Non-Reversible Phenomena in Actinide Systems
J. Gal, I. Halevy, J. Jové, M. Pagès and W. Potzel

10.40 - 11.10: *Pause-café / Coffee Break*

Session orale O7 / *Oral Session O7*

Techniques avancées / Advanced technics

Président / Chairperson : J.C. Krupa

11.10 : Quantitative Analysis of Impurities in Uranium by Laser Ablation Inductively Coupled Plasma Mass Spectrometry
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Palais des Congrès (Salle Morey-Saint-Denis)

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P2.2 Magnetic Properties of UFeGe
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Lundi / Monday
28 Avril / April 28
(Suite / Continued)

- P2.3 Magnetisation Densities and Uranium Form Factor in UNiGa and UNiAl
M. Olsovec, J. Schweizer, L. Paolasini, V. Sechovsky and K. Prokes
- P2.4 Magnetic Orderings in URhSi and URhGe
V.H. Tran, R. Troc and G. André
- P2.5 Magnetic Properties of $(\text{Th}_{1-x}\text{Y}_x)_2\text{Fe}_{14}\text{B}$
A.V. Andreev, M.I. Bartashevich, T. Goto, and S.M. Zadvorkin
- P2.6 Structure and Element Distribution in the $\text{UFe}_{10-x}\text{Al}_x\text{Si}_2$ System
G. André, F. Bourée, P. Burlet, K. Wochowski, and W. Suski
- P2.7 Magnetic Structure of the $\text{UCu}_{4-x}\text{Ni}_x\text{Al}_8$ System.
G. André, F. Bourée, P. Burlet, K. Wochowski, and W. Suski
- P2.8 Magnetic Properties of $\text{UCu}_{4-x}\text{Mn}_x\text{Al}_8$ Alloys
K. Wochowski
- P2.9 Structure, Magnetic and Electrical Properties of the $\text{UMn}_{4-x}\text{Fe}_x\text{Al}_8$ System
W. Suski, K. Wochowski, D. Badurski, A. Gilewski, and T. Mydlarz
- P2.10 Magnetoresistance of UCu_5Al Intermetallic Compound
E.M. Levin, R. Troc, R. Andruszkiewicz, T. Palewski
- P2.11 Polarizability of Actinides and Covalent Bonding
G. Ionova, Ch. Madic and R. Guillaumont
- P2.12 A New Method for Immobilizing Actinide Metal Oxide Ions : Complexation by Polymers Synthesized in an Electrochemical Way
D. Leroy, L. Martinot and C. Jérôme
- P2.13 Determination of Uranium, Thorium, Plutonium, Americium and Curium Ultra-Traces by PERALS System
J. Aupiais and N. Dacheux
- P2.14 Use of Grafted Macrocycles in the Treatment of Alpha Contaminated Liquid Wastes
H. Chollet, F. Barbette and R. Guillard

Lundi / Monday
28 Avril / April 28
(Suite / Continued)

- P2.15 Solubility of Thorium Oxide
T. Vincent, B. Fourest, R. Guillaumont and S. Hubert
- P2.16 Sorption of Am(III) and Cm(III) on to some phosphate compounds
J.Perrone, R.Cavellec, C. Luca, B. Fourest, S. Hubert, and E. Simoni
- P2.17 Stability and Protonation Effects in Curium(III) Complexes Formed with Lacunary Heteropolytungstates in Acidic Solutions
A.Ioussov and J.C.Krupa
- P2.18 Sonochemical Extraction of Neptunium and Sonochemical Effects in Extraction System TBP-Dodecane/HNO₃
S.I. Nikitenko, P.Moisy, L. Venault and C. Madic
- P2.19 Synthesis, Crystal Structure and Electron Absorption Spectrum of Neptunium(V) Complex with Organic Molecular Ligand - [NpO₂Urea₅]ClO₄·H₂O
M.S. Grigoriev, A.Yu. Garnov and N.N. Krot
- P2.20 Electron Absorption Spectra and the Structures of Some Neptunium(IV) Heteropoly Compounds.
A.Yu. Garnov, I.A. Charushnikova and N.N. Krot
- P2.21 Solvent Extraction of U(VI) by a Calix[6]Arene Bearing Carboxy Groups
C. Dinse, N. Baglan, C. Cossonnet, J.F. Le Dû, and J. Vicens
- P2.22 Complementarity of Nuclear Spectrometry and Multielement Techniques for Radiotoxicological Analysis
N. Baglan, A. Amaral, C. Cossonnet, D. Franck, and J. Ritt
- P2.23 Advances in X and low energy gamma ray spectroscopy for whole-body counting.
D. Franck, L de Carlan, C. Dousse, R. Soulié and P.Pihet
- P2.24 Magnetic Form Factors in NpX₃ Compounds
F. Bourdarot, P. Burlet, J. Larroque, E. Lelievre-Berna, E. Ressouche and J.P. Sanchez

Lundi / Monday
28 Avril / April 28
(Suite / Continued)

P2.25 Search for an Origin of the Non-Fermi-Liquid Behavior of Resistivity of UAsSe Ferromagnet
Z. Henkie, T. Cichorek, A. Pietraszko, R. Fabrowski,
A. Wojakowski, B.S. Kuzhel, L. Kepinski
and L. Krajczyk

15.50 - 16.20: Pause-café / *Coffee Break*

Palais des Congrès (Foyer)

16.20 - 18.20 : **Session affiches P2 / Poster Session P2**
Président / *Chairperson* : **A.V. Andreev**

18.30 - 19.30 : Trajet vers Beaune / *Transfer to Beaune*
Départ de l'hôtel / *Departure from Hotel*

19.30 - 23.00 : **Caves Patriarche - Beaune**
Visite des caves- Dégustation de vins
Visit of cellars - Wine tasting
Dîner de gala / *Conference Banquet*

Mardi / Tuesday
29 Avril / April 29

Palais des Congrès (Salle Morey-Saint-Denis)

Session orale O8 / *Oral Session O8*
Systèmes dilués à électrons f / Diluted f-electrons Systems
Président / *Chairperson* : **P. Monachesi**

8.30 : f-Dilution Alloying as a Tool For Understanding the Interplay of f-Localization and Hybridization in Light Actinide Compounds
B.R. Cooper and Y.L. Lin

8.50 : Disappearance of Magnetic Ordering in the $U_{1-x}La_xS$ System : Neutron Diffraction and Specific Heat Measurements
F. Bourdarot, P. Burlet, R. Clemczuk, F. Lapierre, K. Mattenberger and O. Vogt.

9.10 : Electronic Properties of UPdSn Diluted by Lu
L. Havela, R.V. Dremov, A.V. Andreev,
V. Sechovsky and J. Sebek

9.30 : Magnetic Properties of $Pu_xY_{1-x}Sb$ Single Crystals
O. Vogt, K. Mattenberger and J. Rebizant

9.50 : Non-Collinear Magnetic Structures in UTX and UX Compounds
L. Sandratskii and J. Kübler

Mardi / Tuesday
29 Avril / April 29
(Suite / Continued)

10.10 - 10.40: Pause-café / *Coffee Break*

Session orale O9/ *Oral Session O9*

Thermodynamique et chimie en solution/ *Thermodynamics and Solution Chemistry*

Président / *Chairperson* : **M. Beauvy**

10.40 : Actinide Chemistry at the Dedicated Rossendorf Beam Line (ROBL) at the European Synchrotron Radiation Facility (ESRF)

O. Nitsche

11.00 : Prediction of Thermodynamic Properties of Actinides
G. Ionova, C. Madic, R. Guillaumont, S. Ionov and M. Hudson

11.20 : Potentiometric Control of the Binding and Release of Actinides and Lanthanides by a Cation Exchange Resin

C. Jérôme, M. Mertens, L. Martinot, R. Jérôme, D. Strivay and G. Weber

11.40 : Redox Chemistry of Np(VI)/Np(V) Couple in Nitric/Nitrous Acid Aqueous Media

Ph. Moisy, I. Gaquer and C. Madic

12.00 : Multiple Scattering Analysis in X-Ray Absorption Spectroscopy of Pu^(III)Fe^(III)(CN)₄ Complexes : First Results

C. Den Auwer, P. Moisy, A. Chabane, C. Madic and R. Guillaumont

12.20 - 13.00 : Conclusions et perspectives

Summary and future prospects

Président / *Chairperson* : **O. Eriksson**

R. Troc and C. Madic

13.00 - 14.30 : Déjeuner / *Lunch*

14.30 : Au revoir / *Farewell*