

CONTENTS OF VOL. II

Section H: FUSION THERMODYNAMICS

The current status of fusion reactor blanket thermodynamics (IAEA-SM-236/56)	3
<i>E. Veleckis, R.M. Yonco, V.A. Maroni</i>	
Discussion	30
Experimental study of gaseous lithium deuterides and lithium oxides: Implications for the use of lithium and Li_2O as breeding materials in fusion reactor blankets (IAEA-SM-236/15)	31
<i>H.R. Ihle, H. Kudo, C.H. Wu</i>	

Section I: BASIC THERMODYNAMIC STUDIES

Extrapolation procedures for calculating high-temperature Gibbs free energies of aqueous electrolytes (IAEA-SM-236/11)	47
<i>P.R. Tremaine</i>	
Discussion	58
Aqueous actinide complexes: A thermochemical assessment (IAEA-SM-236/01)	59
<i>J. Fuger, I.L. Khodakovskij, V.A. Medvedev, J.D. Navratil</i>	
Discussion	74
Regularity in the changes of the thermodynamic functions associated with the formation of mononuclear complexes (IAEA-SM-236/02)	75
<i>A.S. Strezov, M.Kh. Mikhajlov, V.Ts. Mikhajlova, M.I. Taskaeva</i>	
Thermodynamique de solubilisation de la magnétite en milieu basique (IAEA-SM-236/12)	89
<i>I. Lambert, J. Montel, P. Beslu, A. Lalet</i>	
Discussion	103
Complexes aqueux d'ions métalliques présents dans le retraitement des combustibles nucléaires: Complexes avec les ligands orthophénanthroline et dibutylphosphate (IAEA-SM-236/78)	105
<i>C. Musikas, G. Le Marois, J. Racinoux</i>	
Discussion	122

Investigations on caesium uranates: VII. Thermochemical properties of $\text{Cs}_2\text{U}_4\text{O}_{12}$ (IAEA-SM-236/34)	125
<i>E.H.P. Cordfunke, E.F. Westrum Jr.</i>	
Discussion	141
Alkaline earth uranates: An exploration of their thermophysics and stabilities (IAEA-SM-236/54)	143
<i>E.F. Westrum Jr., H.A. Zainel, D. Jakes</i>	
Discussion	154
Энталпия образования $\text{YH}_{1.994}$ и $\text{YH}_{2.792}$ (IAEA-SM-236/75)	155
<i>B.B. Ахачинский</i>	
(Enthalpy of formation of $\text{YH}_{1.994}$ and $\text{YH}_{2.792}$: (V.V. Akhachinskij)	
О термодинамической нестабильности твердого раствора алюминия в плутонии (δ -фазы) при комнатной температуре (IAEA-SM-236/96)	161
<i>B.B. Ахачинский, Л.Ф. Тимофеева</i>	
(Thermodynamic instability of a solid solution of aluminium in plutonium (δ -phase) at room temperature: V.V. Akhachinskij, L.F. Timofeeva)	
Discussion	169
Термодинамика и кинетика взаимодействия металлов с монокарбидом, моносульфидом и карбосульфидом урана (IAEA-SM-236/98)	171
<i>B.N. Загрязкин, A.C. Панов, E.B. Физейский</i>	
(Thermodynamics and kinetics of interactions of metals with uranium monocarbide, monosulphide and carbosulphide: V.N. Zagryazkin et al.)	
Discussion	184
Investigations on silicothermic reduction of uranium fluorides (IAEA-SM-236/29)	185
<i>J.M. Juneja, S.P. Garg, Rajendra Prasad, D.D. Sood</i>	
Discussion	191

Section J: PHASE DIAGRAMS

Advanced fuels for fast breeder reactors: A critical assessment of some phase equilibria (IAEA-SM-236/40)	195
<i>P.E. Potter, K.E. Spear</i>	
Discussion	226
Термодинамический расчет фазовой диаграммы системы UC–UN (IAEA-SM-236/92)	229
<i>A.Л. Удовский, O.С. Иванов</i>	
(Thermodynamic calculation of the phase diagram of the UC–UN system: A.L. Udovskij, O.S. Ivanov)	

Фазовые равновесия в системе уран–хром–углерод (IAEA-SM-236/94)	247
<i>Z.M. Алексеева, O.C. Иванов</i>	
(Phase equilibria in the uranium–chromium–carbon system: Z.M. Alekseeva, O.S. Ivanov)	
Discussion	270
Calculability of multiple chemical interactions (IAEA-SM-236/24)	271
<i>S. Fenyi, H. Sundermann</i>	

Section K: STUDIES RELATED TO CLAD PERFORMANCE

Thermodynamic studies of thorium carbide fuel preparation and fuel/clad compatibility (IAEA-SM-236/61)	277
<i>T.M. Besmann, E.C. Beahm</i>	
Discussion	295
The effect of small fourth-element alloying additions on the calculated phase stability in the Fe–Cr–Ni system (IAEA-SM-236/44)	297
<i>J.S. Watkin</i>	
Calculation of the driving force for the radiation induced precipitation of Ni ₃ Si in nickel–silicon alloys (IAEA-SM-236/45)	315
<i>A.P. Miodownik, J.S. Watkin</i>	
Precipitation reactions in austenitic stainless steels (IAEA-SM-236/50)	331
<i>M. Hoch, Yung-Shih Chen</i>	

Section L: MELT/CONCRETE INTERACTIONS

Influence of gas generation on melt/concrete interactions (IAEA-SM-236/58)	351
<i>D.A. Powers</i>	
Discussion	365
Interaction of molten ‘corium’ with concrete in a hypothetical LWR core-melt-down accident: Oxidation of core materials and hydrogen production (IAEA-SM-236/26)	367
<i>M. Peehs, K. Hassmann</i>	

Section M: SUMMARY

A Summary of the Symposium	383
<i>P.A.G. O'Hare</i>	

Chairmen of Sessions	391
Secretariat of the Symposium	392
List of Participants	393
Author Index	403
Transliteration Index	405
Pre-print Symbol Index	406
Subject Index	407