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(Publications from the Microcalorimetry Research Center)

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- O-1 Dielectric Study on Ionic Orientational Disorder in the Low-Temperature Phases of Ionic Plastic Crystal KNO_2 .
Hisashi Honda, Noriko Onoda-Yamamuro, Shin'ichi Ishimaru, Ryuichi Ikeda, Osamu Yamamuro and Takasuke Matsuo, *Ber. Bunsenges. Phys. Chem.*, **102**, 148-151 (1998).
- O-2 Deuteration Induced Phase Transition in Ammonium Hexachloroplumbate.
Y. Kume, M. Muraoka, O. Yamamuro and T. Matsuo, *J. Chem. Phys.*, **108**, 4090-4097 (1998).
- O-3 Calorimetric Study of Proton Tunneling in Solid 5-Bromo-9-Hydroxy-Phenalenone and Deuteration-Induced Phase Transitions in Its Deuteroxy Analog.
T. Matsuo, K. Kohno, A. Inaba, T. Mochida, A. Izuoka and T. Sugawara, *J. Chem. Phys.*, **108**, 9809-9816 (1998).
- O-4 Low-Temperature Thermal Properties of the Werner Clathrate Inclusion Compounds. Isotopic *p*-Xylenes in Tetrakis (4-methylpyridine) Nickel (II) Thiocyanate.
K. Ishida, T. Matsuo, H. Suga, W. Zielenkiewicz and J. Lipkowski, *J. Chem. Thermodyn.*, **30**, 1289-1306 (1998).
- O-5 Heat Capacity and Phase Transitions of the Orientationally Disordered Crystal C $(\text{SCH}_3)_4$.
Michio Sorai, Keisuke Kimura, Alarich Weiss and Roman Strauss, *J. Chem. Thermodyn.*, **30**, 1441-1453 (1998).
- O-6 Calorimetric and NMR Studies on Phase Transitions of $(\text{CH}_3\text{NH}_3)_2\text{AlCl}_5 \cdot 6\text{H}_2\text{O}$.
N. Onoda-Yamamuro, R. Ikeda, O. Yamamuro and T. Matsuo, *J. Korean Phys. Soc.*, **32**, S225-S227 (1998).
- O-7 Tunneling Effect in Phase Transitions of $\text{K}_3\text{H}(\text{SeO}_4)_2$ and Its

- Deuterated Analogue.
K. Kohno, T. Matsuo and M. Ichikawa, *J. Korean Phys. Soc.*, **32**, S393-S396 (1998).
- O-8 Quantum Effect in the Phase Transition of $\text{Cs}_3\text{H}(\text{SeO}_4)_2$ Crystal : Calorimetric Study.
M. Uetani, O. Yamamuro, A. Inaba, T. Matsuo and M. Ichikawa, *J. Korean Phys. Soc.*, **32**, S397-S399 (1998).
- O-9 Thermal and Dielectric Studies of Protonated Potassium Phosphate Glass.
H. Obara, O. Yamamuro and T. Matsuo, *J. Korean Phys. Soc.*, **32**, S821-S823 (1998).
- O-10 Dielectric and Calorimetric Studies on Dynamical Properties of Halomethane Crystals.
O. Yamamuro, T. Ohta and T. Matsuo, *J. Korean Phys. Soc.*, **32**, S839-S841 (1998).
- O-11 Calorimetric Study on Glass Transition of Plastically Crystalline Cyanoadamantane.
M. Ishikawa, O. Yamamuro, T. Matsuo, H. Takakura and N. Achiwa, *J. Korean Phys. Soc.*, **32**, S842-S844 (1998).
- O-12 A Raman Scattering Investigation of the Structure of Glassy and Liquid $\text{Ge}_x\text{Se}_{1-x}$.
Yong Wang, Osamu Matsuda, Koichi Inoue, Osamu Yamamuro, Takasuke Matsuo, Kazuo Murase, *J. Non-Cryst. Solids*, **232-234**, 702-707 (1998).
- O-13 Enthalpy Relaxation of Glassy Glycerol Prepared by Rapid Liquid Quenching.
Osamu Yamamuro, Yasuko Ohishi, Makoto Nishizawa and Takasuke Matsuo, *J. Non-Cryst. Solids*, **235-237**, 517-521 (1998).
- O-14 Crystalline Monolayer of Dodecanoic Acid Adsorbed on Graphite from *n*-Heptane Solution.
M.A. Castro, S.M. Clarke, A. Inaba, C.C. Dong and R.K. Thomas, *J. Phys. Chem. B*, **102**, 777-781 (1998).
- O-15 Calorimetric Study of Glassy and Liquid Toluene and Ethylbenzene : Thermodynamic Approach to Spatial Heterogeneity in Glass-Forming Molecular Liquids.

- O. Yamamuro, I. Tsukushi, A. Lindqvist, S. Takahara, M. Ishikawa and T. Matsuo, *J. Phys. Chem. B*, **102**, 1605-1609 (1998).
- O-16 Order-Disorder Phase Transitions in Tetrathioorthoesters of Group IV Elements $X(\text{SCH}_3)_4$, $X = \text{C, Si, Ge, Sn}$.
Hartmut Fuess, Roman Strauss, Keisuke Kimura and Michio Sorai, *J. Phys. Chem. B*, **102**, 5329-5334 (1998).
- O-17 Competitive Adsorption of Simple Linear Alkane Mixtures onto Graphite.
M.A. Castro, S.M. Clarke, A. Inaba, T. Arnold and R.K. Thomas, *J. Phys. Chem. B*, **102**, 10528-10534 (1998).
- O-18 Disappearance of a Displacive Phase Transition in Crystalline Biphenyl by a Small Amount of Impurity.
Yasuhisa Yamamura, Kazuya Saito, Michio Sorai and Isao Ikemoto, *J. Phys. Soc. Jpn.*, **67**, 1649-1654 (1998).
- O-19 Distortion of Local Order Parameter Caused by Impurities in Displacive Phase Transition.
Kazuya Saito, *J. Phys. Soc. Jpn.*, **67**, 3137-3140 (1998)
- O-20 Ferroelectric Phase Transitions in $\text{Sn}_2\text{P}_2\text{S}_6$ and $\text{Sn}_2\text{P}_2\text{Se}_6$,
K. Moriya, H. Kuniyoshi, K. Tashita, Y. Ozaki, S. Yano and T. Matsuo, *J. Phys. Soc. Jpn.*, **67**, 3505-3511 (1998).
- O-21 Neutron Powder Diffraction Study of the Low-Temperature Phases of KNO_2 .
N. Onoda-Yamamuro, H. Honda, R. Ikeda, O. Yamamuro, T. Matsuo, K. Oikawa, T. Kamiyama and F. Izumi, *J. Phys., : Condensed Matt.*, **10**, 3341-3351 (1998).
- O-22 Entropic Evidence of the Order-Disorder Nature of the Phase Transition in *p*-Terphenyl Crystal.
Yasuhisa Yamamura, Kazuya Saito, Isao Ikemoto and Michio Sorai, *J. Phys. : Condensed Matt.*, **10**, 3359-3366 (1998).
- O-23 Large Impurity Effect on Phase Behavior of a Molecular Crystal : Heat Capacity of High Purity Bis(4-fluorophenyl) methanone.
Kazuya Saito, Syugo Huzisawa and Isao Ikemoto, *J. Phys. Chem. Solids*, **59**, 159-166 (1998).
- O-24 Calorimetric Study of the Relationship between Molecular Structure

and Liquid Crystallinity of Rod-like Mesogens. II. Heat Capacities and Phase Transitions of 4- (*trans*-4 propylcyclohexyl) benzonitrile. S. Asahina, M. Sorai and R. Eidenschink, *Liq. Cryst.*, **24**, 201-210 (1998).

- O-25 Do Alkoxy Chains Behave Like a Solvent in the D Phase? DSC Study of Binary Systems, ANBC (n_c) ($n_c = 8, 16$ and 18) -*n*-Tetradecane.
Kazuya Saito, Ayako Sato and Michio Sorai, *Liq. Cryst.*, **25**, 525-530 (1998).
- O-26 General Purpose Cryostat Applicable to Chopped-Light ac Calorimetry with Highly Stable Thermal Condition
Kazuya Saito, Yasuhisa Yamamura and Michio Sorai, *Netsu Sokutei (Calorimetry and Therm. Anal.)*, **25**, 150-153 (1998).
- O-27 Neutron Powder Diffraction Study of $(ND_4)_2SeCl_6$ under High Pressure.
O. Yamamuro, K. Okishiro, T. Matsuo, T. Ohta, Y. Kume and R.M. Ibberson, *Physica*, **B241-243** 466-468 (1998).
- O-28 New Scattering Techniques to Characterise the Structure of Solid Monolayers Adsorbed from Condensed Phases to Solid Substrates.
M.A. Castro, S.M. Clarke, A. Inaba and R.K. Thomas, *Physica*, **B241-243**, 1086-1088 (1998).
- O-29 Low Temperature Thermal Properties of Amorphous Materials.
Takasuke Matsuo, *Pure & Appl. Chem.*, **70**, 599-602 (1998).
- O-30 Construction of a Top Loading Adiabatic Calorimeter and Enthalpy Relaxation of Glassy $(1,3\text{-Propanediol})_{0.5}(1,2\text{-Propanediamine})_{0.5}$.
I. Tsukushi, O. Yamamuro, K. Sadanami, M. Nishizawa T. Matsuo and K. Takeda, *Rev. Sci. Instrum.*, **69**, 179-184 (1998).
- O-31 Development of an Adiabatic Calorimeter for Simultaneous Measurement of Enthalpy and Volume under High Pressure.
S. Takahara, O. Yamamuro, M. Ishikawa T. Matsuo and H. Suga, *Rev. Sci. Instrum.*, **69**, 185-192 (1998).
- O-32 Temperature-Pressure Phase Diagrams of Double-Column Organic Conductors : $(DMET)_2BF_4$, $(DMET)_2ClO_2$ and $(DIMET)_2BF_4$.
Harukazu Yoshino, Kazuya Saito, Tatsuo Sato, Hiroyuki Nishikawa, Koichi Kikuchi, Keiji Kobayashi and Isao Ikemoto, *Synth. Metals*,

96, 19-27 (1998).

- O-33 Vibrational Properties of Quasicrystals of Al-Cu-Ru, Al-Pd-Re and Al-Pd-Mn Deduced from Heat Capacities.
A. Inaba, A-P. Tsai and K. Shibata, *Proc. 6th Int'l Conf. Quasicrystals* (Yamada Conference XLVII) Tokyo (1997), eds. S. Takeuchi and T. Fujiwara, World Scientific (1998) 443-450.
- O-34 Physical Properties of Two-Dimensionally Polymerized C₆₀.
B. Sundqvist, A. Fransson, A. Inaba, C. Meingast, P. Nagel, V. Pasler, B. Renker and T. Wagberg, *Proc. Symp. Recent Adv. Chem. & Phys. Fullerenes and Related Materials* (189th meeting of the Electrochemical Society in Los Angeles, 1998), Vol. 6, 705-716 (1998).
- R- 1* 結晶中の分子の内部運動自由度と相挙動
山村泰久, 齋藤一弥, 熱測定, **25**, 33-42 (1998).
- R- 2 Low Energy Excitations of Molecular Glasses.
O. Yamamuro, *Proc. Int'l Workshop on JHP Science* (KEK Proceedings 98-5), Vol. III, 160-163 (1998).
- B- 1* 理化学辞典 (改訂 5 版)
徂徠道夫 (分担執筆), 岩波書店 (1988).
- B- 2* 熱量測定・熱分析ハンドブック
松尾隆祐, 稲葉章, 徂徠道夫, 齋藤一弥, 長野八久, 宮崎裕司 (分担執筆), 日本熱測定学会編, 丸善 (1998).
- T- 1* アトキンス 物理化学要論 (第 2 版): The Elements of Physical Chemistry (2nd edition).
千原秀昭, 稲葉章 (共訳): P.W. Atkins 著, 東京化学同人 1998 年 3 月 16 日発行 (690 頁)
- M- 1* International Workshop on the Calibration of Calorimeters 報告
松尾隆祐, 熱測定, **25**, 46 (1998).
- M- 2* 第15回IUPAC化学熱力学国際会議 (ICCT-98) 報告
徂徠道夫, 長野八久 (分担執筆), 熱測定, **25**, 162-166 (1998).
- M- 3* 「クローズ・アップ」第16回
新化学物質生成の「なぜ」に挑む: ミクロ燃焼熱測定による化学熱力学
長野八久, 阪大Now, **6**, 4-6 (1998).