

目 次

〈論文〉

Structural Basis for the Anisotropic Thermal Expansion of Aluminum Titanate, Al_2TiO_5 , at Elevated Temperatures

..... Alexandra Doncieux, Keisuke Ninomiya, Nobuo Ishizawa,
Toshitaka Ota and Marc Huger 1

種々の乾燥法を用いたシリカエアロゲルの作製

..... 王 嘉墨・林 一成・片桐成人・安達信泰・太田敏孝 12

〈解説〉

Electrically Functional Silicone Composites and Their Application in Mechanical Sensors

..... Chen Guo, Dianming Sun, Chika Takai, Razavi Hadi,
Takashi Shirai, Feng Wang, Masayoshi Fuji 21

粉末回折データに対する逆畳み込み・畳み込み処理の考え方

..... 井田 隆 37

〈技術報告〉

酸化マグネシウムの物理化学的特性評価

..... 羽田政明・加藤聖崇・境 昭二 44

液相エピタキシー法による希土類置換磁性ガーネットの格子不整合と磁気ドメインの温度依存性について

..... 安達信泰 52

粉末回折データから得られた構造精密化結果の LaTeX 文書化

..... 泉 富士夫 57

〈研究業績〉 61

〈センターニュース〉 81

Contents

〈Original Paper〉

Structural Basis for the Anisotropic Thermal Expansion of Aluminum Titanate, Al_2TiO_5 , at Elevated Temperatures

..... Alexandra Doncieux, Keisuke Ninomiya, Nobuo Ishizawa,
Toshitaka Ota and Marc Huger 1

Preparation of Silica Aerogel by Different Kinds of Drying Methods

... Kaboku Oh, Kazunari Hayashi, Naruhito Katagiri, Nobuyasu Adachi, Toshitaka Ota 12

〈Review〉

Electrically Functional Silicone Composites and Their Application in Mechanical Sensors

..... Chen Guo, Dianming Sun, Chika Takai, Razavi Hadi,
Takashi Shirai, Feng Wang, Masayoshi Fuji 21

Concept of Deconvolution-Convolution Treatment on Powder X-ray Diffraction Data

..... Takashi Ida 37

〈Technical Report〉

Evaluation of Physico-Chemical Properties of Magnesium Oxide

..... Masaaki Haneda, Kiyotaka Kato, Shouji Sakai 44

Temperature Dependence of Lattice Mismatch and Magnetic Domain Structure of Rear Earth Substituted Iron Garnet Films Synthesized by Liquid Phase Epitaxy Technique

..... Nobuyasu Adachi 52

LaTeX Documentation of Results Obtained by Structure Refinement from Powder Diffraction Data

..... Fujio Izumi 57

〈Research Activity〉 61

〈News〉 81