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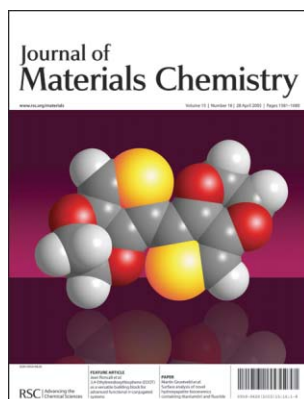
ISSN 0959-9428 CODEN JMACEP 15(16) 1581–1680 (2005)

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Fabrication of long whiskers of manganese–barium oxides with a tunnel crystal structure. See Goodilin *et al.*, pp. 1614–1620



Chemical biology articles published in this journal also appear in the *Chemical Biology Virtual Journal*: www.rsc.org/chembiol



Cover

See Jean Roncali, Philippe Blanchard and Pierre Frère, pp. 1589–1610.

EDOT dimmer: The self-rigidification of the structure by non covalent intramolecular sulfur–oxygen interactions opens many opportunities for the design of functional π -conjugated systems.

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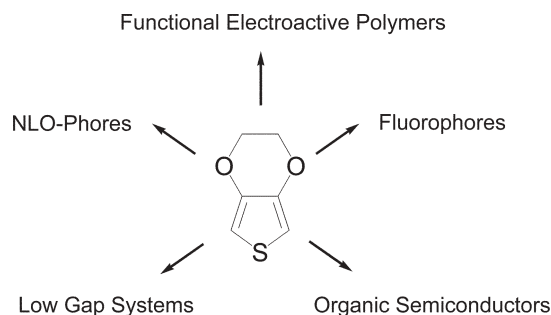
FEATURE ARTICLE

1589

3,4-Ethylenedioxythiophene (EDOT) as a versatile building block for advanced functional π -conjugated systems

Jean Roncali,* Philippe Blanchard and Pierre Frère

This short review emphasizes the opportunities offered by EDOT, a unique building block for the design of various classes of π -conjugated systems with specifically tailored electronic and optical properties.



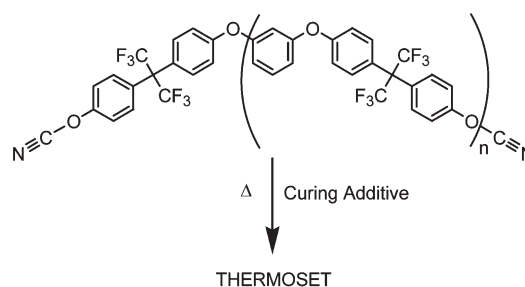
COMMUNICATION

1611

Development of an oligomeric cyanate ester resin with enhanced processability

Matthew Laskoski, Dawn D. Dominguez and Teddy M. Keller*

A liquid multiple aromatic ether containing cyanate ester resin system has been synthesized based on bisphenol A6F. The cured resin exhibited good thermo-oxidative stability and mechanical properties.



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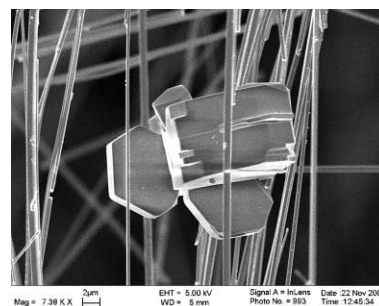
PAPERS

1614

A simple method of growth and lithiation of $\text{Ba}_6\text{Mn}_{24}\text{O}_{48}$ whiskers

E. A. Goodilin,* E. A. Pomerantseva, V. V. Krivetsky, D. M. Itkis, J. Hester and Yu. D. Tretyakov

A new simple growth method of manganese-rich oxide whiskers with a tunnel crystal structure is developed to form fibers of one-dimensional superionic conductors.

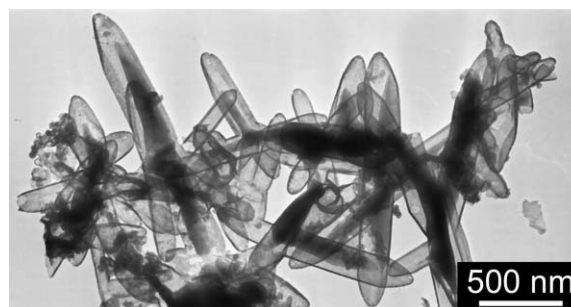


1621

***In-situ* investigation and effect of additives on low temperature aqueous chemical synthesis of Bi_2Te_3 nanocapsules**

X. B. Zhao,* T. Sun, T. J. Zhu and J. P. Tu

Bi_2Te_3 nanocapsules with hollow structure have been synthesized and *in-situ* investigated using a low temperature aqueous chemical route in an open system.

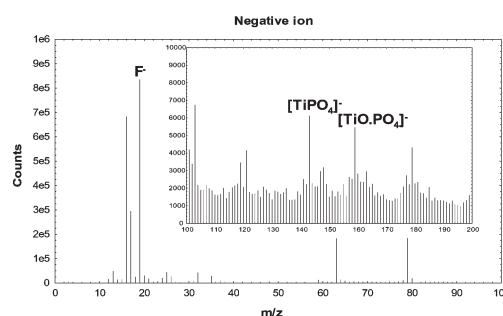


1626

Surface analysis of novel hydroxyapatite bioceramics containing titanium(IV) and fluoride

Christopher J. L. Silwood, Isaac Abrahams, David C. Apperley, Nicholas P. Lockyer, Edward Lynch, Majid Motevalli, Roger M. Nix and Martin Grootveld*

Three hydroxyapatite bioceramics incorporating either titanium(IV) and fluoride, or titanium(IV), fluoride and salicylate have been prepared and analysed using a range of solid state techniques.

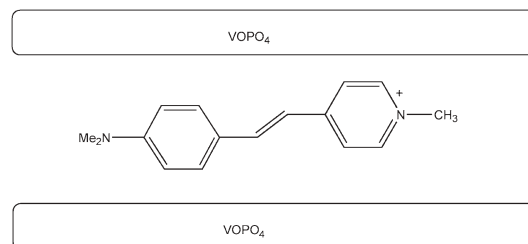


1637

Synthesis and characterization of intercalation compounds of stilbazolium chromophores into layered vanadyl phosphate

Chuluo Yang, Huiqiong Zhou, Xingguo Chen, Ying Liu and Jingui Qin*

New inorganic–organic hybrid nanocomposite compounds were obtained by inserting stilbazolium chromophores into interlamellar space of VOPO_4 for potential nonlinear optical property.



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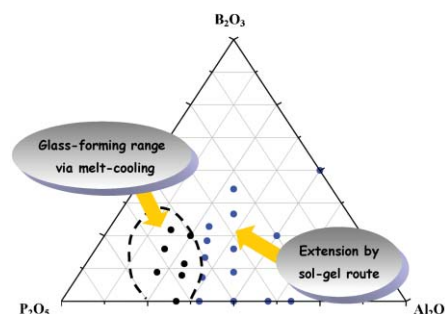
PAPERS

1640

Synthesis and structural evolution of Al_2O_3 – B_2O_3 – P_2O_5 gels and glasses

Long Zhang and Hellmut Eckert*

Aluminium borophosphate gels and glasses with different compositions are prepared *via* an aqueous sol–gel process and the influence of composition and temperature on the hydrolysis, polymerization, and vitrification processes is studied.

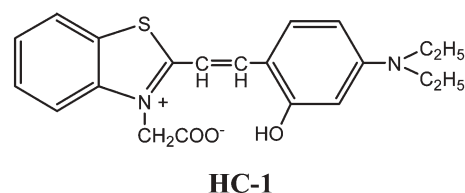


1654

Efficient electron injection due to a special adsorbing group's combination of carboxyl and hydroxyl: dye-sensitized solar cells based on new hemicyanine dyes

You-Sheng Chen, Chao Li, Zhang-Hua Zeng, Wei-Bo Wang, Xue-Song Wang* and Bao-Wen Zhang*

Benzothiazolium hemicyanine dyes with both carboxyl and hydroxyl as anchoring groups exhibited improved efficiencies of electron injection onto nanocrystalline TiO_2 electrodes.

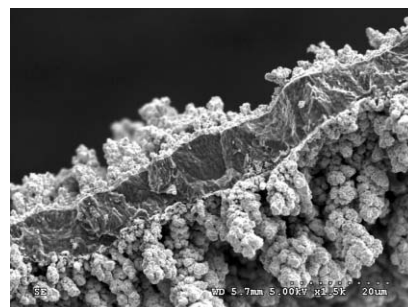


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Electrodeposition of Cu on deeply reduced polypyrrole electrodes at very high cathodic potentials

Toribio F. Otero,* Sara O. Costa, María J. Ariza and Manuel Marquez

Copper dendrites form by electrodeposition from an aqueous electrolyte on both sides of a deep reduced film of polypyrrole, proving the great conductivity of the reduced material.

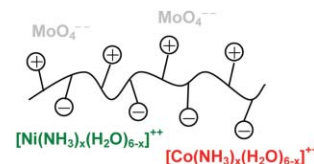


1668

A facile precursor route to transition metal molybdates using a polyzwitterionic matrix bearing simultaneously charged moieties and complexing groups

François Rullens, Nicolas Deligne, André Laschewsky* and Michel Devillers*

Hybrid organic–inorganic materials made from an easily-synthesizable zwitterionic polymer used as a sacrificial matrix to stabilize metal species are prepared and used as precursors for simple and mixed Ni, Mn, Co, Ni–Co and Mn–Co molybdates.



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