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RSC Mechanochemistry

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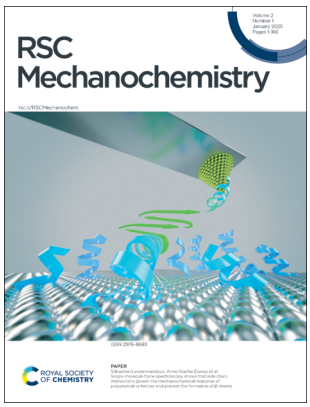

Cover
See Sébastien Lecommandoux, Anne-Sophie Duwez *et al.*, pp. 37–44. Image reproduced by permission of Anne-Sophie Duwez from *RSC Mechanochem.*, 2025, **2**, 37.

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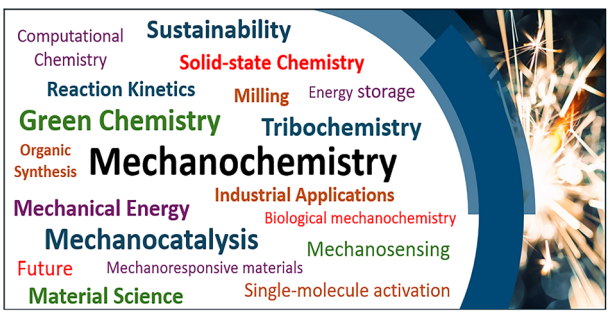
Moving mechanochemistry forward

James Batteas, Kerstin G. Blank, Evelina Colacino, Franziska Emmerling, Tomislav Friščić, James Mack, Jeffrey Moore, Maria Elena Rivas and Wilfred Tysoe



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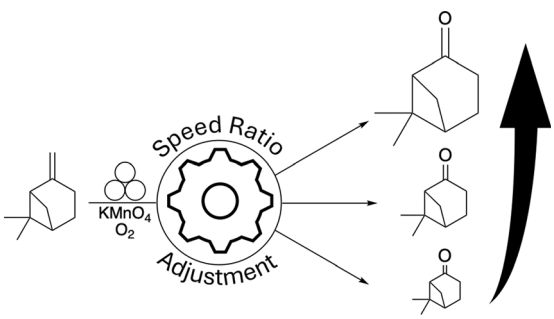
A new planetary ball mill device with adjustable speed ratio for enhanced mechanochemical processes

Frank Yntema, Cameron Webster and Emmanouil Broumidis*



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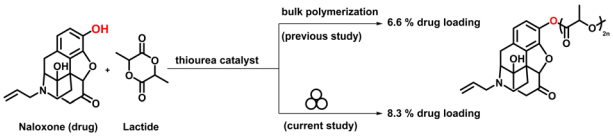
Naloxone-initiated mechanochemical synthesis of poly(lactic acid)

Mohammad A. Ebqa'ai,
Sandun Bogahawaththa Kasthuri Dias, Andrew J. Kassick,
Saadyah Averick and Toby L. Nelson*



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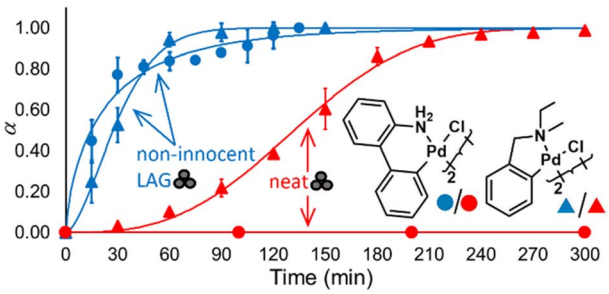
Experimental and kinetic modelling study of NC palladacycles mechanosynthesis

Rachel J. Allenbaugh,* Tia M. Ariagno and Jeffrey Selby



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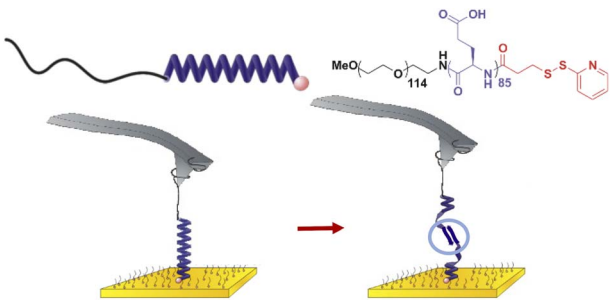
Single-molecule force spectroscopy shows that side chain interactions govern the mechanochemical response of polypeptide α-helices and prevent the formation of β-sheets

Marie Asano, Damien Sluysmans, Nicolas Willet,
Colin Bonduelle, Sébastien Lecommandoux*
and Anne-Sophie Duwez*



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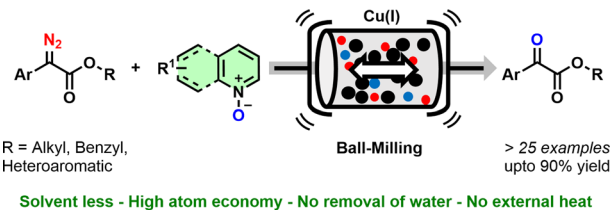
Eco-friendly anaerobic oxidation of aryl diazo esters with heterocyclic *N*-oxide under ball milling: synthesis of 1,2-dicarbonyl systems

Souvik Guha, Subhabrata Sen* and Ludovic Gremaud*



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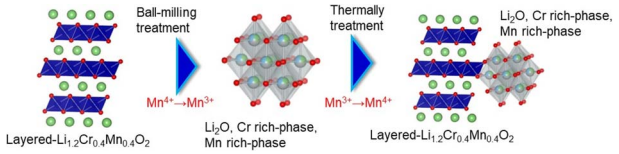

Cathode properties of a controlled crystallinity nano-$Li_{1.2}Cr_{0.4}Mn_{0.4}O_2$ cathode for lithium ion batteries

Ayuko Kitajou,* Shohei Matsuda, Koji Ohara, Kazutaka Ikeda and Shunsuke Muto

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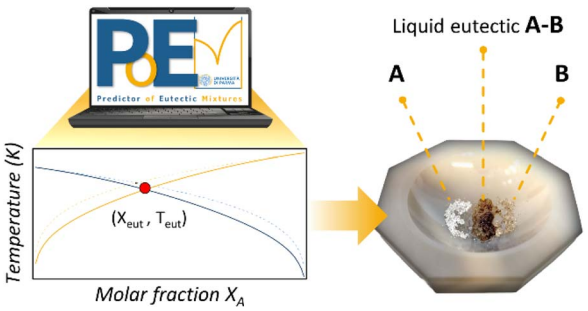

A method to predict binary eutectic mixtures for mechanochemical syntheses and cocrystallizations

Michele Prencipe, Paolo P. Mazzeo and Alessia Bacchi*

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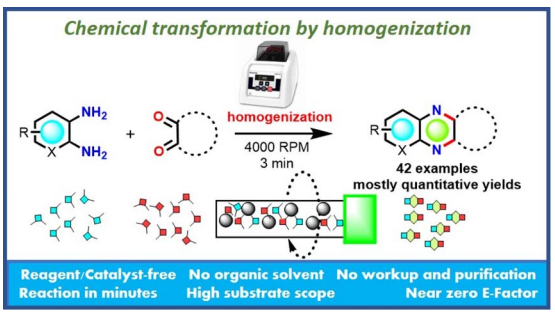

Homogenization offers access to quinoxalines in minutes: a solvent-free, catalyst-free protocol with a near-zero *E*-factor

Abboy Chatterjee, Didreekshya Mahanta, Shamima Hussain, Amrita Chatterjee* and Mainak Banerjee*

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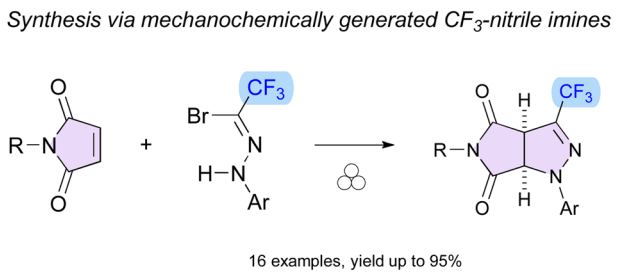

Trapping *in situ* generated CF_3-nitrile imines with maleimides under solvent-free mechanochemical conditions

Greta Utecht-Jarzyńska, Szymon Jarzyński and Marcin Jasiński*

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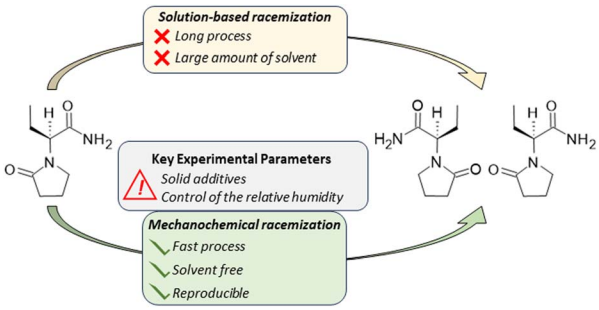
Efficient racemization of the pharmaceutical compound Levetiracetam using solvent-free mechanochemistry

Chrystal Lopes, Lucia Casali, Franziska Emmerling, Tom Leyssens, Valérie Dupray, Clement Brandel* and Yohann Cartigny*



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Rapid mechanochemical synthesis and properties in Pb–Bi–S system

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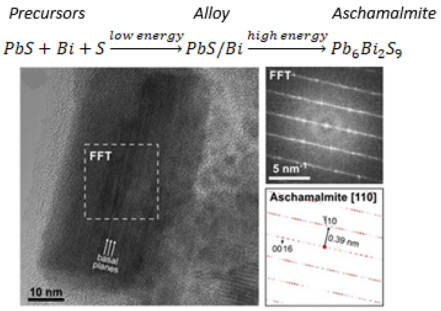

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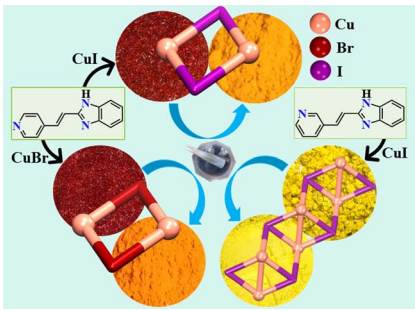
Coordination polymers containing dimeric Cu_2X_2 and polymeric $(CuI)_n$ clusters linked by unsymmetrical isomeric pyridine-benzimidazole linkers: modulating photophysical properties by mechanical stimuli

Prantik Dutta, Abhijit Garai and Kumar Biradha*



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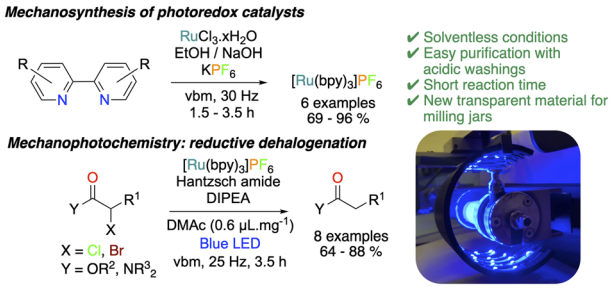
Mechanosynthesis of ruthenium trisbipyridyl complexes and application in photoredox catalysis in a ball-mill

Florian Luttringer, Matthieu Lavayssiere, Enita Rastoder, Nikita Salov, Tristan Gravelet, François Quintin, Julien Pinaud, Frédéric Lamaty and Xavier Bantreil*



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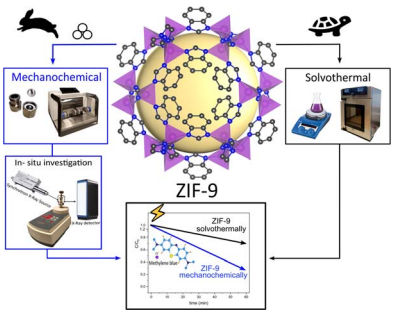

Mechanochemical ZIF-9 formation: *in situ* analysis and photocatalytic enhancement evaluation

Noelia Rodríguez-Sánchez, Carsten Prinz, Ralf Bienert, Menta Ballesteros, A. Rabdel Ruiz Salvador, Biswajit Bhattacharya* and Franziska Emmerling*

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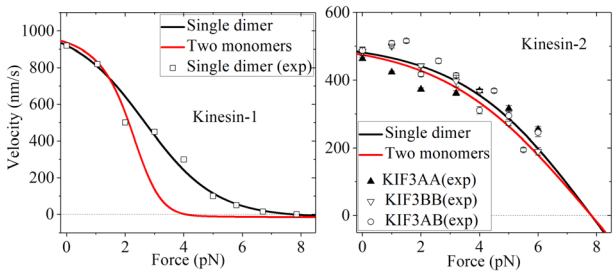

Mechanochemical coupling of two coupled kinesin monomers: comparison with that of the single dimer

Ping Xie*

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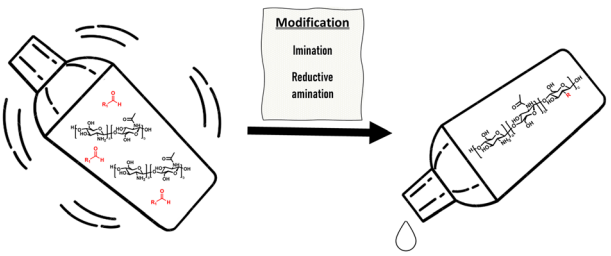

Shaking up conjugates between chitosan and aldehydes *via* mechanochemistry

Casper Van Poucke, Sven Mangelinckx and Christian V. Stevens*

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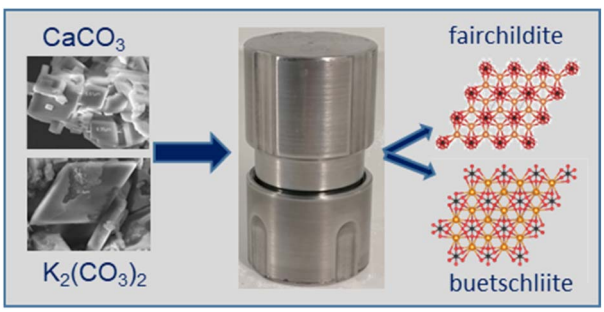

Mechanochemical synthesis and transformation of the polymorphic double carbonates fairchildite and buetschliite, ($K_2Ca(CO_3)_2$): an *in situ* X-ray powder diffraction study

Volker Kahlenberg,* Doris E. Braun, Wolfgang Schmidt, Hang Liu, Sebastian Leiting and Claudia Weidenthaler*

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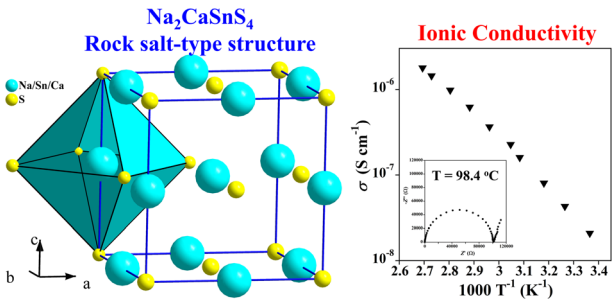
Mechanochemical synthesis of rock salt-type Na_2CaSnS_4 as a sodium-ion conductor

Hamdi Ben Yahia,* Atsushi Sakuda and Akitoshi Hayashi*



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