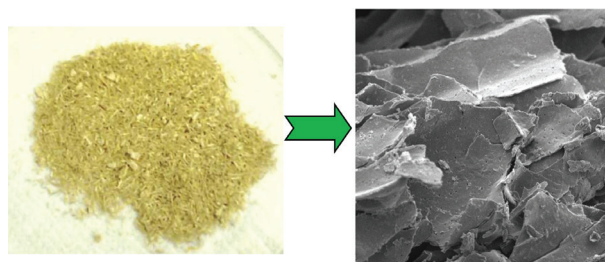


- 121 Adsorção de contaminantes do biodiesel por fibras de bagaço modificadas na superfície

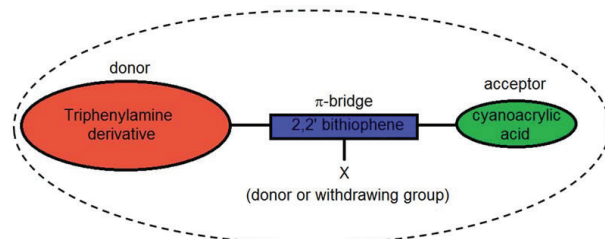
Renata de S. Oliveira, Mariana F. Borges, Andressa T. Vieira, Mariana A. Henrique, Elaine A. M. Ribeiro, Franciel A. Bezerra, Flaysner M. Portela, Nilson R. Pereira, Rosana M^a Nascimento de Assunção e Reinaldo Ruggiero

Sugarcane bagasse fibers modified superficially through the carboxymethylation process - *in natura* and MEV image - that were used to adsorb contaminants in biodiesel from soybean oil.



- 129 Optoelectronic properties of triphenylamine based dyes for solar cell applications. a DFT study

Zakaria M. E. Fahim, Si M. Bouzzine, Mouay M. Hamidi, Mohammed Bouachrine, Mohamed Hamidi, Guillermo Salgado-Morán, Luis H. Mendoza-Huizar and Giaan A. Alvarez-Romero

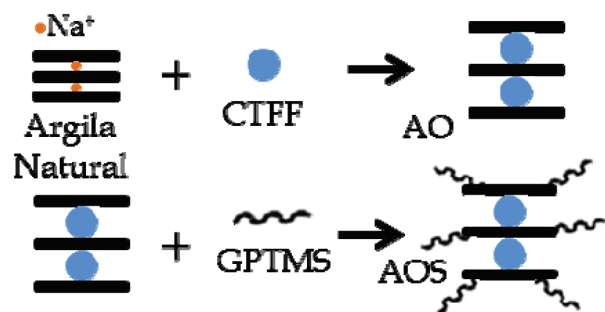


General molecular structure of the triphenylamine based dyes analyzed in the present work.

- 134 Organofilização e silanização de argila bentonita

Amanda F. Baruel, Rita C. L. Dutra, Maurício R. Baldan, Cristina M. A. Lopes e Silvana N. Cassu

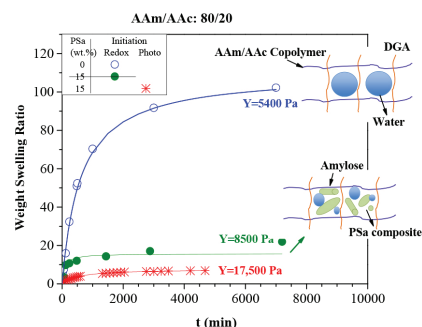
A bentonite clay was modified with methoxymethyltriphenylphosphonium chloride (CTFF), this organoclay was silanized with (3-glycidyloxypropyl)trimethoxysilane (GPTMS).



- 140 The use of polysaccharides extracted from seed of *Persea americana* var. Hass on the synthesis of acrylic hydrogels

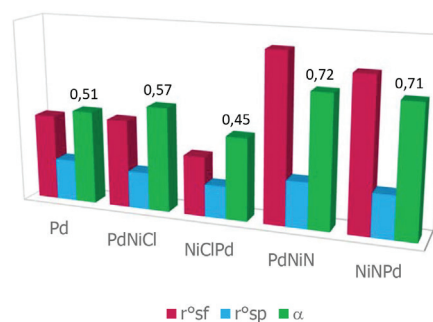
Vicente A. Lara-Valencia, Haydeé Dávila-Soto, Francisco J. Moscoso-Sanchez, Edgar B. Figueroa-Ochoa, Francisco Carvajal-Ramos, Victor V. A. Fernández-Escamilla, Alejandro González-Álvarez, J. Félix A. Soltero-Martínez, Emma R. Macías-Balleza and Salvador García- Enríquez

The kinetic swelling and the compression modulus of acrylic hydrogels are affected by the presence of polysaccharides extracted from seed of *Persea americana* var. Hass and for the type of initiation on the polymeric network.



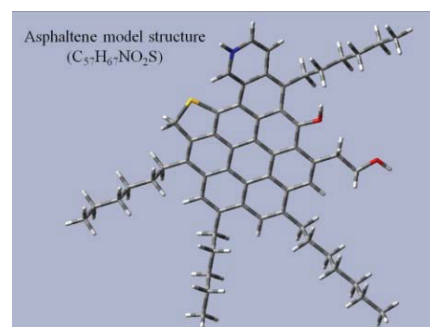
- 151 More active and sulfur resistant bimetallic Pd-Ni catalysts
Carolina Betti, Nicolás Carrara, Juan Badano, Cecilia Lederhos, Carlos Vera and Mónica Quiroga

In the absence of sulfur, PdNiN and NiNPd catalysts had the highest initial rate of hydrogenation (r_{sf}^0). In the presence of poison, all the catalysts had similar initial rate of hydrogenation (r_{sp}^0). NiClPd presented the lowest fraction of poisoned sites (a), resulting the most sulfur resistant.



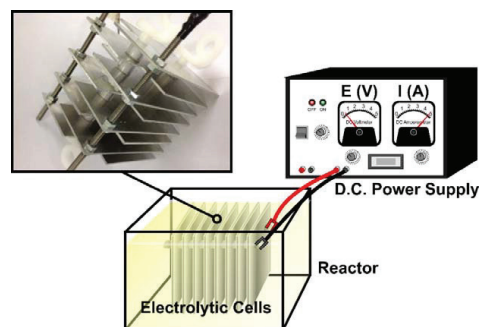
- 157 Avaliação de asfaltenos precipitados em diferentes condições de composição, temperatura e pressão
Lyzette G. M. de Moura e Paulo de T. V. e Rosa

Asphaltenes are the heaviest and most polar fraction of crude oils and have the property of self-associate, precipitating in the reservoir or during the production and processing, which can cause serious damage and economic lost to the oil industry.



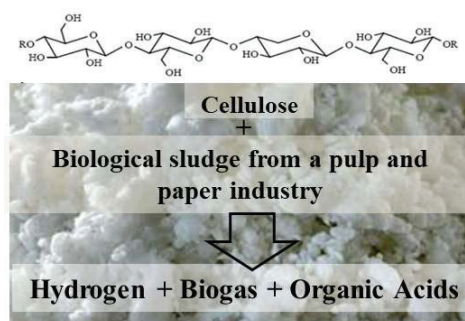
- 163 Processo de eletrocoagulação-flotação: investigação dos parâmetros operacionais para o tratamento de águas residuais da indústria de pescados
Jair J. João, Tuane Emerick, Urias de S. Filho e Rafael K. Nishihora

Schematic representation of the electrochemical system forming a parallel circuit used in wastewater treatment.



- 169 Bioconversion of cellulose into hydrogen, biogas and organic acids using microbial consortium from a pulp and paper mill wastewater treatment plant
Camila A. B. S. Rabelo, Laís A. Soares, Isabel K. Sakamoto and M^a Bernadete A. Varesche

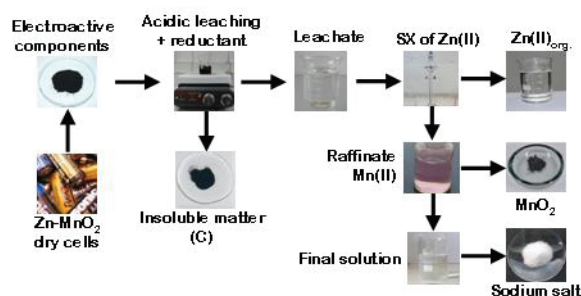
The hydrolysis and fermentation of cellulose into hydrogen, biogas and organic acids was performed successfully by biological sludge without pre-workout and without addition of cellulase.



176 Processing of spent zinc-MnO₂ dry cells in various acidic media

Vinício F. Ibiapina, Ulysses dos S. Florentino, Júlio C. Afonso, Valdir Gante, Cláudio A. Vianna and José L. Mantovano

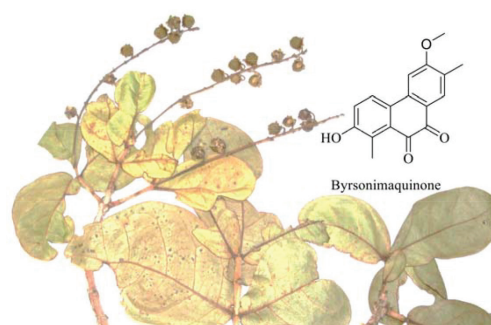
Efficient leaching of spent zinc-MnO₂ dry cells under mild experimental conditions using weak acids. Zn(II) was best extracted by D2EHPA at pH 2. Sodium salts of the anions of the leachants were recovered.



184 New degraded quinone diterpenoid from the stems of

Byrsonima coccolobifolia Kunth. (Malpighiaceae)
Lorena R. F. de Sousa, Marcos H. F. Santos, Vanessa G. P. Severino, Richele P. Severino and Paulo C. Vieira

New degraded diterpenoid, byrsonimaquinone, isolated from the stems of *Byrsonima coccolobifolia*.

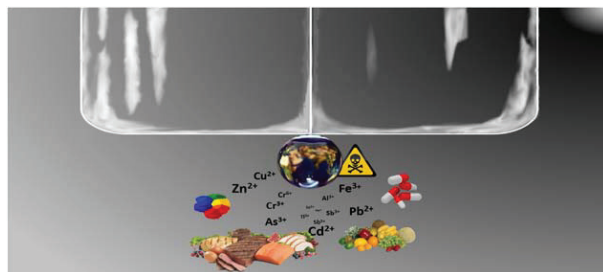


Revisão

189 A versatilidade do eletrodo de gota pendente de mercúrio em

química analítica – uma revisão sobre recentes aplicações
Chalder N. Nunes, Vanessa E. dos Anjos e Sueli P. Quinária

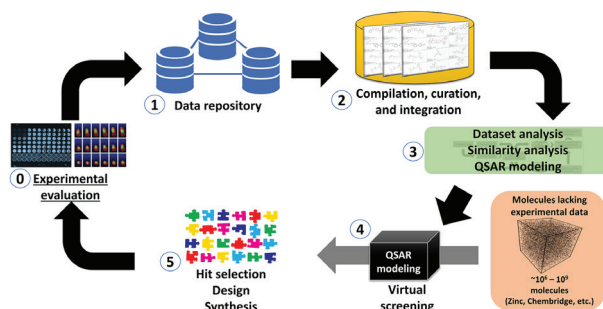
Good sensitivity, versatility and low cost make the use of Hanging Mercury Drop Electrode still significant in many countries. Organic and inorganic analytes remain to be studied in different matrices.



202 Quimioinformática: uma introdução

Vinicius M. Alves, Rodolpho C. Braga, Eugene N. Muratov e Carolina H. Andrade

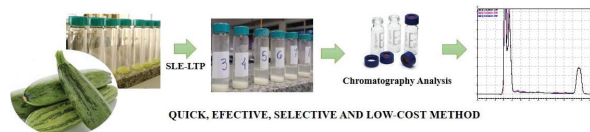
Application of cheminformatics to evaluation, selection, and design of new chemicals with optimized properties.



Nota Técnica

- 213 Otimização da extração sólido-líquido com partição em baixa temperatura para determinação de carbofurano em *Cucurbita pepo L* ("abobrinha") por cromatografia líquida de alta eficiência

Rogério P. Rodrigues, Waldiclécio R. Farias, Simone M. Goulart, Adilson C. Goulart, João P. V. Santos e M^a Eliana L. R. de Queiroz



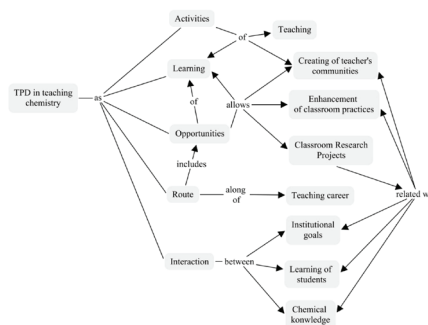
The SLE/LTP-HPLC/UV method was optimized for the determination of carbofuran residues in zucchini. After partitioning at low temperature, the extracts are directly analyzed by chromatography.

Educação

- 219 Una defensa de la perspectiva formativa del desarrollo profesional docente en la práctica educativa de los profesores de química

Ricardo Aponte-Buitrago

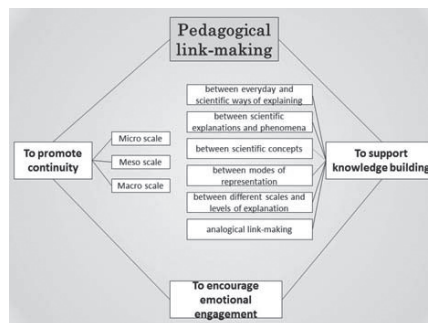
Teachers' Professional Development (TPD) is a set of learning opportunities, insights and discussions that improves the classroom practices of teachers. However, the relationship between TPD and educational practice in chemistry educators has not been widely discussed. A theoretical approach around its close link is analyzed.



- 227 Relações pedagógicas em aulas de ciências da Educação Superior

Ana L. de Quadros, Ariane S. F. Silva e Eduardo F. Mortimer

This figure illustrates a pedagogical link-making in the context of teaching and learning scientific conceptual knowledge.



- 236 Phenomenological approaches to study learning in the tertiary level chemistry laboratory

Santiago Sandi-Urena

Phenomenological studies allow a thorough description of laboratory learning environments. Through its analysis researchers gather a better understanding of how learning in the lab occurs. This knowledge informs pedagogical decisions and the design of curricular reforms.

