

# SUPERCritical WATCH

Your weekly report about supercritical and subcritical processes **to make good decisions**



## Weekly Report : 17<sup>th</sup> to 24<sup>th</sup> January 2018

Watch realized by **Kasop Tech & Event** | Collect and sorting of relevant data | All links are checked | [Register on-line !](#)

### Events Events

January 23 2018

[La gazette du laboratoire - Calendrier /  
Webinaires](#)

<https://www.gazettelabo.fr/calend/index.php>

Du 24 Janvier 2018 au 26 janvier 2018. 15th  
INTERNATIONAL SYMPOSIUM ON  
HYPHENATED TECHNIQUES IN  
CHROMATOGRAPHY AND SEPARATION  
TECHNOLOGY. CARDIFF - ROYAUME-UNI ...

Du 13 Avril 2018 au 13 avril 2018. Journée  
Fluides Supercritiques - 1ere édition.

VERSAILLES - FRANCE ...



*."Technical Day on supercritical fluid  
extraction and separation - April 2018 -  
ISIPCA (France) "*

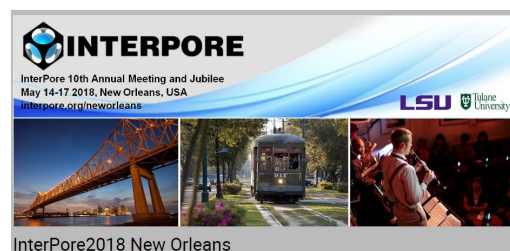


January 18 2018

[InterPore2018 New Orleans \(14-17 May 2018\) ·  
InterPore Event ...](#)

[https://events.interpore.org/event/2/contributions/  
speakers](https://events.interpore.org/event/2/contributions/speakers)

Speaker at A methodology for the effective pore  
radius determination in the context of  
macroscopic fluid flow predictions in medical  
diagnostic membranes. Vladimir Alvarado  
University of ... Speaker at Modelling of advective  
and capillary flows in sandstone cores during the  
injection of supercritical CO<sub>2</sub>. Reza Azin Faculty  
of ...



Scientific papers and news  
scientific papers and news

January 23 2018

[Post-doc: Supercritical Water Gasification in South Holland, Delft](#)

<https://www.iamexpat.nl/career/jobs...supercritical.../150683>

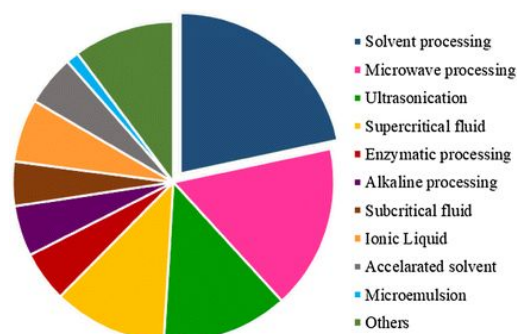
Delft University of Technology is hiring a Post-doc: Supercritical Water Gasification in South Holland, Delft. Are you an expat looking for ... PhD degree in chemical engineering, technical physics, or mechanical engineering, with proven affinity for chemical processes, thermodynamics, and LCA. • Interest in both applied and ...



January 18 2018

[Green and Sustainable Separation of Natural Products from Agro ...](#)

<https://link.springer.com/article/10.1007/s41061-017-0182-z> - New generations of biorefinery combine innovative biomass waste resources from different origins, chemical extraction and/or synthesis of biomaterials, biofuels, and ... andsupercritical treatments), by-products (e.g., citrus, coffee, corn, and sugarcane waste) and target compounds (polyphenols, proteins, essential oils, etc.) ...



January 18 2018

[Supercritical CO2 assisted synthesis of sulfur-modified zeolites as ...](#)

[pubs.rsc.org/en/Content/.../C7NJ04869F?...J...](https://pubs.rsc.org/en/Content/.../C7NJ04869F?...J...)  
A novel synthetic strategy has been successfully developed, which utilizes supercriticalCO2 (SC-CO2) to fabricate sulfur-modified zeolites (zeolites@S) for Hg2+ removal from water. Owing to the low viscosity, high diffusivity and excellent dissolving capacity, SC-CO2 as the nontoxicity, noninflammability an.



January 23 2018

[Tough, Adhesive and Self-Healing Conductive 3D Network Hydrogel ...](#)

[pubs.rsc.org/en/Content/ArticleLanding/2018/TA/C7TA10898B](https://pubs.rsc.org/en/Content/ArticleLanding/2018/TA/C7TA10898B)

- In this work, we fabricated functionalized-boron nitride nanosheets (f-BNNS) with the assistance of supercritical CO<sub>2</sub> (SC CO<sub>2</sub>) for the first time. ... permission to reproduce figures, diagrams etc. contained in this article in third party publications or in a thesis or dissertation provided that the correct acknowledgement is given ...



January 23 2018

[Phase Diagrams: Triple Points, Critical Points and Supercritical Fluids](#)  
[SciToons](#)

Did you know that supercritical fluids can be used to dissolve and isolate substances (such as extraction of caffeine from coffee



January 18 2018

[Effects of Supercritical CO<sub>2</sub> Treatment on the Stability of Water-in ...](#)

[pubs.acs.org/doi/pdf/10.1021/acs.energyfuels.7b03372](https://pubs.acs.org/doi/pdf/10.1021/acs.energyfuels.7b03372) -

emulsions and their mechanisms after supercritical CO<sub>2</sub> (scCO<sub>2</sub>) flooding, a device that could simulate the scCO<sub>2</sub> ... In order to improve recovery ratio, the supercritical CO<sub>2</sub> (scCO<sub>2</sub>) flooding technology has been widely ..... Fractionation of asphaltenes in understanding their role in petroleum emulsion stability and fouling.

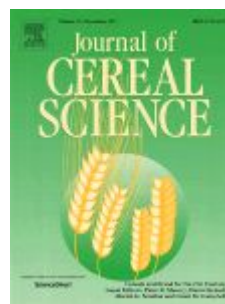
**energy&fuels**

January 19 2018

[Recent Journal of Cereal Science Articles - Elsevier](#)

<https://www.journals.elsevier.com/journal-of-cereal-science/recent-article...>

Phenolic acids, avenanthramides, and antioxidant activity of oats defatted with hexane or supercritical fluid. January 2018 ... Impact of thermochemical pre-treatment and carbohydrate and protein hydrolyzing enzyme treatment on fractionation of protein and lignin from brewer's spent grain. January 2018. Katariina Rommi ...



January 24 2018

[Supercritical fluids for higher extraction yields of ... - ACS Publications](#)

[pubs.acs.org/doi/pdf/10.1021/acs.analchem.7b04913](https://pubs.acs.org/doi/pdf/10.1021/acs.analchem.7b04913) -

In the field of archaeological science, the use of supercritical fluids has not yet been fully explored compared to other analytical techniques (e.g. GC/MS or FTIR). There are only few applications of SFE technology published. These examples mostly relate to cleaning, drying, and conservation of delicate archaeological ...



January 19 2018

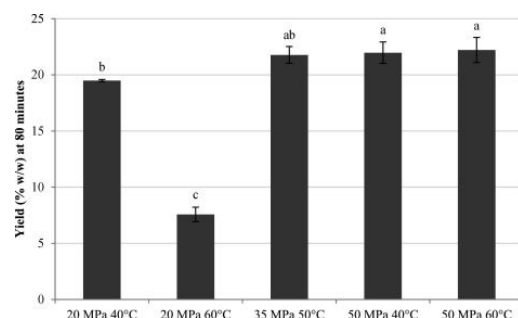
[Chlorella and Spirulina Microalgae as Sources of ... - MedCrave](#)

[medcraveonline.com/MOJFPT/MOJFPT-06-00144.pdf](http://medcraveonline.com/MOJFPT/MOJFPT-06-00144.pdf)

... food evaluated the subcritical water (SW) technology to optimize the extraction of phenolic compounds from Chlorella sp. microalgae to be further applied as an antioxidant was evaluated [39]. It was found compounds as caffeic acid, ferulic acid and p-coumaric acid. It is worth noting that the extraction is commonly carried ...

Microalgae Genus	Main Producers	Products	Production (Ton/Year)
Chlorella	Taiwan Chlorella Manufacturing Co. (Taiwan)	Tablets, powders, nectar, noodles	2,000
	Klotze (Germany)	Powders	
Spirulina	Hainan Simai Pharmacy Co. (China)	Powders, extracts	3,000
	Earthrise Nutritionals (USA)	Tablets, powders, extracts	
	Cyanotech Corp. (USA)	Tablets, powders, beverages, extracts	
	Myanmar Spirulina Factory	Tablets, chips, pasta and liquid extract	

[Supercritical CO2 extraction of bilberry \(Vaccinium myrtillus L.\) seed oil: Fatty acid composition and antioxidant activity](#)  
 RISE Research Institutes of Sweden -  
 Department of Biology and Biological Engineering, Food and Nutrition Science, Chalmers University of Technology, Sweden  
 Received 8 November 2017, Revised 30 December 2017, Accepted 2 January 2018, Available online 4 January 2018.



SCF  
 Companies  
 SCF  
 Companies

January 17 2018

[Technicien R&D Procédés Fluides Supercritiques H/F](#)  
[CEA - Commissariat à l'énergie atomique et aux énergies alternatives](#)

Lieu de travail Chusclan, FR  
 Les missions du poste se déclinent selon plusieurs axes : En charge d'expérimentations relatives à la R&D des procédés supercritique, il s'agit en particulier d'étudier la... neuvoo.fr



*"Technician Job Offer on sub and supercritical water Pilot at CEA, Chusclan FRANCE"*



January 18 2018

[Research Scientist | EURAXESS Poland](#)  
<https://www.euraxess.pl/pl/node/272430>

The DIRECTOR of New Chemical Syntheses Institute advertises vacancy for the post of: Research Scientist (2 posts) in Supercritical Extraction Department in New ... PhD degree in the field of chemical science in the domain of chemical technology;; post-graduate studies in the scope of chemical and process engineering;



January 23 2018

### [Applied Separations @AppSep](#)

Educators: Apply by April 30 for state-of-the-art supercritical fluids tech & classroom materials via @AppSep grant! <http://ow.ly/G0T8309wh8j>  
Teach supercritical fluids in your college classroom. #chemicaleducation #education



January 22 2018

### [EXTRATEX SFI @EXTRATEX\\_SFI](#)

Extraction de Houblon par CO2 supercritique  
Hops extraction with supercritical CO2 / SFE 10L machine

[Click Here to look on the video through You Tube](#)



January 20 2018

### [Supercritical Extractors - ThomasNet](#)

<https://www.thomasnet.com/.../supercritical-extractors-26802702-1...>

Supercritical fluid extraction systems are available for cleaning and filling of vessels, flow rate control, digital temperature control, digital pressure readings, ... removal of cholesterol from animal products, removal of solvents from synthesis products & purification of contaminated soils & synthetic polymers.



January 22 2018

[Scientists create efficient fuel cell powered by solid carbon | Inhabitat ...](#)

<https://inhabitat.com> > News

Researchers at Idaho National Laboratory (INL) have created a new fuel cell that generates clean, efficient electricity using solid carbon sources like coal and .... The Allam cycle exploits the unusual qualities of carbon dioxide, which, under high pressure and temperature, becomes a “supercritical fluid,” a state of matter that ...



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Products  
Market  
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January 17th 2018

[Organic CBD Oil - UK Certified - BioBloom 8% in 10ml or 30ml - for the ...](#)

<https://www.forthageless.com/.../organic-cbd-oil-uk-biobloom-8>

BioBloom's organic CBD Oil (UK and EU certified) is an ideal way to get started with CBD oil, because this is raw, cold-pressed and hand-harvested hemp extract. ... “NateCo2” laboratory. certified organic hemp seeds; gently air dried; hand harvested and processed; Co2 supercritical extraction in a German “NateCo2” lab ...



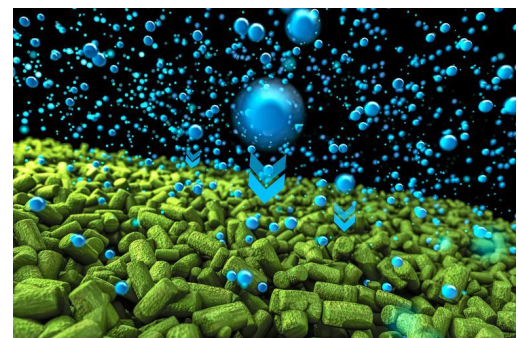
*“CO<sub>2</sub> extract are produced by NateCO2 - quoted at the bottom of the description”*

January 18 2018

[Hoppy Beer - How to Make Ridiculously Hoppy Ales and Lagers](#)

[www.popularmechanics.com/home/.../hops-science-hoppy-beer-ip...](http://www.popularmechanics.com/home/.../hops-science-hoppy-beer-ip...)

CO<sub>2</sub> Extract Hop Oil. CO<sub>2</sub> is pressurized to as much as 6,000 psi to reach the supercritical state, where it acts like a gas with the density of a liquid, and then sent through hop pellets. Sinelab ... Adding hops while the yeast ferments increases contact and extraction thanks to the heat and movement yeast generates.



January 20 2018

[Co2-extract.ru](http://Co2-extract.ru) - [активы, компоненты и ингредиенты для домашней ...](#)

[co2-extract.ru](http://co2-extract.ru)

Комплекс фруктовых кислот с ДМАЭ, 50 г



*Russian on-line shop for cosmetics including a page dedicated to CO2 extract*



January 19 2018

[Global Supercritical Fluid Chromatography Market 2018-2023 ...](#)

<https://declara.com/content/IgAxpKb1>

Learn about Global Supercritical Fluid Chromatography Market 2018-2023 Demand and Insights Analysis Report. Declara makes it easy to discover, share and organize knowledge. We empower individuals, organizations and countries to develop the knowledge needed to solve big problems.



Extended technologies  
extended technologies

January 18 2018

[Siemens: projet de chimie verte avec Evonik - Boursorama](#)

[www.boursorama.com](http://www.boursorama.com) › Bourse › Actions › SIEMENS SIE › Actualités

- (CercleFinance.com) - Siemens annonce qu'il prévoit de collaborer avec son compatriote Evonik sur un projet de recherche conjoint de chimie verte baptisé 'Rheticus', sur lequel une vingtaine de scientifiques travaillent actuellement.



*.Siemens and Evonik plan to collaborate to implement new electrolyse and fermentation process to convert CO2 into fine chemistry goods.*



# SIEMENS

If information about event, company, scientific articles appear several times on the Internet (either on one week or one month) : the information will be placed only once in the Supercritical Watch Weekly Report. Due to the huge number of data editing or up-dating every week on CBD process, products, consumer advice : only a selection of news is done and reported in the Supercritical Watch Report.

Comments or advice on web article lecture is provided through the following icone :

