Professor دانشگاه شهید بهشتی

Farhad Raofie

/ Faculty of Chemistry and Petroleum Sciences

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Education

■ Ph.D: Tehran University, Chemistry_Analytical Chemistry, 1374→1381

■ B.Sc: SHAHID BEHESHTI UNIVERSITY, , 1366→1371

■ M.Sc: Tehran University, , 1371→1373

Research Interests

■

Professional Experiences

■ , 1395→1397

■ , 1395→1400

■ , 1391→1395

■ , 1389→Now

Industry Collaborations

■ استخراج وتعیین مقدار آنتی اکسیدانت در دانه های روغنی با استفاده از سیال فوق بحرانی وکروماتوگرافی گازی کوپل شده به طیف سنجی جرمی 1388

Journal Papers

■ Speciation and determination of ultra trace amounts of inorganic tellurium in environmental water samples by dispersive liquid liquid microextraction and electrothermal atomic absorption spectrometry
- -, Nahid Mashkoori najafi, , Farhad Raofie, Alireza Ghassempour
ANALYTICA CHIMICA ACTA

■ Expansion supercritical fluid into an aqueous solution (ESSAS), a new technique for creating nano-size cyanocobalamin-loaded liposomes, and optimization of involved parameters
Misagh Mohammadi, Mehrnaz Karimi, Farhad Raofie

Journal of the Iranian Chemical Society JICS, Vol.20, pp. 1-13, 2023

■ Micronization of Thebaine Extracted from Papaver bracteatum Lindl. Using Supercritical Fluid Technology
Hamze Salehi, Mehrnaz Karimi, Farhad Raofie
JOURNAL OF AOAC INTERNATIONAL, Vol.105, pp. 593-602, 2022

■ Comparison of Supercritical Fluid Extraction and Ultrasound-Assisted Extraction of Corchorus Olitorius L. and Evaluation of Their Antioxidant Properties and Identification of Compounds Using LC-ESI-MS
Hanieh Nasrolahi, Mehrnaz Karimi, Farhad Raofie
Traditional and Integrative Medicine, Vol.7, pp. 73-86, 2022

■ Production of herbal nanocolloids from Rubia tinctorum L. roots by rapid expansion from supercritical solution into suspension system
Milad Yekefallah, Farhad Raofie
INDUSTRIAL CROPS AND PRODUCTS, Vol.176, 2022

■ Production Ganoderma lucidum extract nanoparticles by expansion of supercritical fluid solution and evaluation of the antioxidant ability
Mehrnaz Karimi, Farhad Raofie, Mehrdad Karimi
Scientific Reports, Vol.12, 2022

■ Development of a bimetal\u2013organic framework\u2013polypyrrole composite as a novel fiber coating for direct immersion solid phase microextraction in situ supercritical fluid extraction coupled with gas chromatography for simultaneous determination of furfurals in dates
Farhad Raofie, ZOHREH FALSAFI
Analytical Methods, Vol.13, pp. 4941-4948, 2021

■ Preparation of stable nanosuspensions from Asplenium scolopendrium leaves via rapid expansion of supercritical solution into aqueous solutions (RESSAS)
Milad Yekefallah, Farhad Raofie
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, Vol.64, 2021

■ Micronization and coating of bioflavonoids extracted from Citrus sinensis L. peels to preparation of sustained release pellets using supercritical technique
Hamze Salehi, Mehrnaz Karimi, Farhad Raofie
Journal of the Iranian Chemical Society JICS, Vol.18, pp. 1-14, 2021

■ Response Surface Methodology for Optimization of Su- percritical Fluid Extraction of Orange Peel Essential Oil
Kiana Ghadiri, Farhad Raofie, Mahnaz Qomi, Ali Davoodi
Pharmaceutical and Biomedical Research, Vol.6, pp. 303-312, 2020

■ Preparation of potent antioxidant nanosuspensions from olive leaves by Rapid expansion of supercritical solution into aqueous solutions (RESSAS)
Milad Yekefallah, Farhad Raofie
INDUSTRIAL CROPS AND PRODUCTS, Vol.155, 2020

■ Simultaneous extraction and fractionation of petroleum biomarkers from tar balls and crude oils using a two-step sequential supercritical fluid extraction
ZOHREH FALSAFI, Farhad Raofie, Hojjat Kazemi, Parisa A. Ariya
MARINE POLLUTION BULLETIN, Vol.159, 2020

■ Preparation of Withaferin A nanoparticles extracted from Withania somnifera by the expansion of supercritical fluid solution
Mehrnaz Karimi, Farhad Raofie
PHYTOCHEMICAL ANALYSIS, Vol.31, pp. 957-967, 2020

■ Extraction of B-Carboline alkaloids and preparation of extract nanoparticles from Peganum harmala L. capsules using supercritical fluid technique
Hamze Salehi, Mehrnaz Karimi, Neda Rezaei, Farhad Raofie
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, Vol.56, 2020

■ Supercritical fluid extraction followed by supramolecularsolvent microextraction as a fast and efficient preconcentrationmethod for determination of polycyclic aromatic hydrocarbonsin apple peels
ZOHREH FALSAFI, Farhad Raofie, Parisa A. Ariya
JOURNAL OF SEPARATION SCIENCE, Vol.43, pp. 1154-1163, 2019

■ Micronization of vincristine extracted from Catharanthus roseus by expansion of supercritical fluid solution
Mehrnaz Karimi, Farhad Raofie
JOURNAL OF SUPERCRITICAL FLUIDS, Vol.146, pp. 172-179, 2019

■ Preparation of Curcuma longa L. Extract Nanoparticles Using Supercritical Solution Expansion
Fatemeh Momen Kiaei, Farhad Raofie
JOURNAL OF PHARMACEUTICAL SCIENCES, Vol.108, pp. 1581-1589, 2018

■ Preparation of silybum marianum seeds extract nanoparticles by supercritical solution expansion
Fatemeh Momen Kiaei, Farhad Raofie
JOURNAL OF SUPERCRITICAL FLUIDS, Vol.138, pp. 46-55, 2018

■ Low-voltage electrochemically stimulated stir membrane liquid-liquid microextraction as a novel technique for the determination of methadone
, Farhad Raofie
TALANTA, pp. 105-112, 2017

■ Application of response surface methodology for the optimization of supercritical fluid extraction of essential oil from pomegranate (Punica granatum L.) peel
, Farhad Raofie
JOURNAL OF FOOD SCIENCE AND TECHNOLOGY-MYSORE, Vol.53, pp. 3113-3121, 2016

■ Optimization of supercritical fluid extraction of essential oils and fatty acids from flixweed (Descurainia Sophia L.) seed using response surface methodology and central composite design
Katayoun Mahdaviara, Mina Jokar Doris, Farhad Raofie
JOURNAL OF FOOD SCIENCE AND TECHNOLOGY-MYSORE, Vol.52, pp. 4450-4458, 2015

■ Simultaneous extraction and determination of trace amounts of olanzapine and fluoxetine from biological fluids comparison of conventional hollow fiber supported liquid phase microextraction and pulsed electrically assisted liquid-phase microextraction techniques
, Farhad Raofie,
Analytical Methods, Vol.7, pp. 7840-7851, 2015

■ Supercritical fluid extraction combined with ultrasound-assisted dispersive liquid liquid microextraction for analyzing alkylphenols in soil samples
Behnaz Daneshvand, Farhad Raofie
Journal of the Iranian Chemical Society JICS, Vol.12, pp. 1287-1292, 2015

■ Porous-membrane-protected polyaniline-coated SBA-15 nanocomposite micro-solid-phase extraction followed by high-performance liquid chromatography for the determination of parabens in cosmetic products and wastewater
Katayoun Mahdaviara, Sara Pandidan, Azam Aliakbari Sefiddarbuni, Farhad Raofie, Mostafa Mohammad poor amini
JOURNAL OF SEPARATION SCIENCE, Vol.38, pp. 1213-1224, 2015

■ Development of a Particle-Trap Preconcentration-Soft Ionization Mass Spectrometric Technique for the Quantification of Mercury Halides in Air
Daniel A. Deeds, Avik Ghoshdastidar, Farhad Raofie, Elise-Andrée Guérette, Alain Tessier, Parisa A. Ariya
ANALYTICAL CHEMISTRY, Vol.87, pp. 5109-5116, 2015

■ Application of response surface methodology for the optimization of supercritical carbon dioxide extraction and ultrasound-assisted extraction of capparis spinosa seed oil
, Monireh Karami, Farhad Raofie
JOURNAL OF SUPERCRITICAL FLUIDS, Vol.85, pp. 173-182, 2013

■ Carrier mediated transport solvent bar microextraction forpreconcentration and determination of dexamethasone sodi umphosphate in biological fluids and bo vine milk samples usingresponse surface methodology
, Zahra Akhondpooramiri, Farhad Raofie
JOURNAL OF CHROMATOGRAPHY B-ANALYTICAL TECHNOLOGIES IN THE BIOMEDICAL AND LIFE SCIENCES, Vol.931, pp. 148-156, 2013

■ Optimization of Supercritical fluid extraction combined with dispersive liquid-liquid microextraction as an efficient sample preparation method for determination of 4-nitrotoluene and 3-nitrotoluene in complex matrix
Farhad Raofie
ACTA NEUROPSYCHIATRICA, Vol.88, pp. 50-53, 2012

■ Optimization of supercritical fluid extraction combined with dispersive liquid liquid microextraction as an efficient sample preparation method for determination of 4-nitrotoluene and 3-nitrotoluene in a complex matrix
Mina Jokar Doris, Farhad Raofie
TALANTA, Vol.88, pp. 50-53, 2012

■ Comparison of supercritical fluid extraction and ultrasound-assisted extraction of fatty acids from quince cydonia oblonga miller sed using response surface methodology and central composite design
Behnaz Daneshvand, , Farhad Raofie
JOURNAL OF CHROMATOGRAPHY A, Vol.1252, pp. 1-7, 2012

■ Extraction of Borago officinalis L. flower fatty acids and essential oils by Supercritical carbon dioxide Fluid Extraction using Central Composite Design
Negin Fasih Ramandi, Nahid Mashkoori najafi, Farhad Raofie, Ensieh Ghasemi
ACADEMIC MEDICINE, Vol.76, 2011

■ Central Composite Design for the Optimization of superciritical carbon dioxide fluid extracrion of fatty acids from borago officinalis l.flower
Negin Fasih Ramandi, Nahid Mashkoori najafi, Farhad Raofie,
JOURNAL OF FOOD SCIENCE, Vol.76, pp. 1262-1265, 2011

■ simltaneous speiation and preconcentration of ultra traces of inorganic tellurium and selenium in environmental samples by hollow fiber liquid phase microextraction prior to electrothermal atomic absorption spectroscopy determination
- -, Nahid Mashkoori najafi, Farhad Raofie, Alireza Ghassempour
JOURNAL OF HAZARDOUS MATERIALS, Vol.181, pp. 491-496, 2010

■ Simultaneous speciation and preconcentration of ultra traces of inorganic tellurium and selenium in environmental samples by hollow fiber liquid phase microextraction prior to electrothermal atomic absorption spectroscopy determination
- -, Nahid Mashkoori najafi, Farhad Raofie, Alireza Ghassempour
JOURNAL OF HAZARDOUS MATERIALS, Vol.181, pp. 491-491, 2010

■ application of response surface methodology and central composite design for the optimisation of supercritical fluid extraction of essential oil from myrtus communis l. leaves
- -, Farhad Raofie, Nahid Mashkoori najafi
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■ speciationand determination of trace inorganic tellurium in environmental samples by electrodeposition - electrothermal atomic absorption spectroscopy
- -, Nahid Mashkoori najafi, Shahram Seidi, Farhad Raofie, Alireza Ghassempour
JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY, Vol.24, pp. 1446-1451, 2009

■ Reaction of gaseous mercury with molecular iodine atomic iodin and iodine oxide raicals- kinetics product studies and atmospheric implications
Farhad Raofie
CANADIAN JOURNAL OF CHEMISTRY, pp. 811-820, 2008

■ استخراج تبائین از کپسول خشخاش ایرانی با استفاده از سیال فوق بحرانی دیاکسید کربن (Papaver bracteatum Lindl.)
مریم اشرفی خراسانی، فرهاد رئوفی
تحقیقات گیاهان دارویی و معطر ایران، نسخه ۳۲، صفحات: ۴۵۹-۴۷۰، ۱۳۹۴

Conference Papers

■ Optimization of ultrasound-assisted extraction of bioactive compounds from Artemisia Vulgaris leaf
Misagh Mohammadi, Farhad Raofie
8th National Congress on Medicinal Plants, pp.157-157

■ Micronization of withaferin extracted from Withania somnifera by Expansion of Supercritical fluid solution
Mehrnaz Karimi, Farhad Raofie
8th National Congress on Medicinal Plants, pp.155-155

■ Supercritical fluid extraction of Hesperidin and Preparation of Extract Nanoparticles from Mentha piperita L. leaves
Hamze Salehi, Farhad Raofie
8th National Congress on Medicinal Plants, pp.156-156

■ Extraction and determination of nano folic acid from wtermelon seeds using supercritical fluid extraction and LC-MS analysisi
Farhad Raofie, Fatemeh Momen Kiaei
6th National Congress on Medicinal Plants, pp.198-198

■ Extraction and determination of pharmaceutical compounds from melissa officinalis using supercritical fluid extraction and ultrasound assisted extraction by GC-MS analysis
Zahra Rezvanju, Farhad Raofie
6th National Congress on Medicinal Plants, pp.296-296

■ comparison of supercritical fluid extraction and ultrasound assisted extraction of fatty acids from kivi seeds
Mahsa Jahanshahifard, Farhad Raofie
6th National Congress on Medicinal Plants, pp.201-201

■ Extraction and determination of nano curcumin from curcuma longa l. using super critical fluid extraction and GC-MS analysis
Farhad Raofie, Fatemeh Momen Kiaei
BIT 5 th Annual conference of Analytix-2017, pp.315-315

■ EXTRACTION OF THEBAINE FROM PAPAVER BRACTEATUM CAPSULE USING SUPERCRITICAL FLUID CO2 AS A GREEN AND HIGH-TECH
Farhad Raofie
International Symposium on Preparative and Industrial Chromatography and Allied Techniques (SPICA)

■ EXTRACTION OF OMEGA-3 AND OMEGA-5 FROM POMEGRANATE SEED USING SUPERCRITICAL CO2 IN GREEN AND HIGH-TECH EXTRACTION PROCESS USING RESPONSE SURFACE METHODOLOGY AND CENTRAL COMPOSITE DESIGN
Farhad Raofie
International Symposium on Preparative and Industrial Chromatography and Allied Techniques (SPICA)

■ EXTRACTION OF FATTY ACIDS OROM PUMPKIN SEED USING SUPERCRITICAL CO2 IN GREEN AND HIGH-TECH SEPARATION PROCESS USIRESPONSE SURFACE METHODOLOGY AND CENTRAL COMPOSITE DESIGN
Farhad Raofie
International Symposium on Preparative and Industrial Chromatography and Allied Techniques (SPICA)

■ SUPERCRITICAL CO2 AND ULTRA SOUND-ASSISTED EXTRACTION OF TERPENESAND FATTY ACIDS FROM DESCURAINIA SOPHIA L. SEED USING SURFACE METHODOLOGY
, Mina Jokar Doris, Farhad Raofie
14th international symposium on advances in extraction technologies, pp.123-123

■ SUPERCRITICAL CO2 AND ULTRASOUND-ASSISTED EXTRACTION OF VOLATILECOMPONENTS FROM PRUNUS AVIUM L. AND PRUNUS CERASUS L. PEDUNCLES USING RESPONSE SURFACE METHODOLOGY
, , Farhad Raofie
14th international symposium on advances in extraction technologies, pp.124-124

■ COMPARISON OF SUPERCRITICAL FLUID AND ULTRASOUND ASSISTED OFVOLATILE COMPONENTS FROM MULBERRY (MORUS NIGRA) USING RESPONSE SURFCE METHODOLOGY AND CENTRAL COMPOSITE DESIGN
Farhad Raofie,
14th international symposium on advances in extraction technologies, pp.122-122

■ COMPARISON OF MICROWAVE AND ULTRASOUND ASSISTED EXTRACTION OF VOLATILE COMPONENTS FROM BANANA (MUSA ACUMINATA COLLA) PEEL USING RESPONSE SURFACE METHODOLOGY
, Sara Pandidan, Farhad Raofie
14th international symposium on advances in extraction technologies, pp.94-94

■ OPTIMIZATION OF SUPERCRITICAL CO2 EXTRACTION AND MICROWAVE- ASSISTED EXTRACTION OF ESSENTIOAL OIL FROM POMEGRANATE (PUNICA GRANATUM) PEEL USING CENTRAL COMPOSITE DESIGN
, Farhad Raofie
14th international symposium on advances in extraction technologies, pp.121-121

■ COPPARISON OF SUPERCRITICAL FLUID EXTRACTION AND ULTRASOUNDASSISTED-Assisted extraction of volatile components from mango seed and peel using central composite design
, , Farhad Raofie
14th international symposium on advances in extraction technologies, pp.93-93

■ COMPARISON OF SUPERCRITICAL FLUID EXTRACTION AND ULTRASOUNDASSISTED EXTRACTION OF FATTY ACIDS FROM CAPER (CAPPARIS SPINOSA)COMPOSITE DESIGN
, , Farhad Raofie
14th international symposium on advances in extraction technologies, pp.92-92

■ EXTRACTION OF FATTY ACIDS FROM ZUCCHINI SEED USING SUPERCRITICAL CO2 IN GREEN AND HIGH-TECH SEPARATION PROCESS COMPARE WITH ULTRASOUND- ASSISTED EXTRACTION USING RESPONSE SURFACE METHODOLOGY AND CENTRAL COMPOSITE DESIGN
Sara Keshavarz ba haghighat, , Farhad Raofie
14th international symposium on advances in extraction technologies, pp.91-91

■ Hollow fiber-based liquid phase microextraction combined with high performance liquid chromatography for the analysis of fexofenadine in plasma samples
Farhad Raofie, , , ,
HTC-12/HTSP-2, pp.1-1

■ Extraction of quince seed oil using supercritical CO2 in green and high tech separation process with GC-Mass Analysis using central composite design
Behnaz Daneshvand, , Farhad Raofie
HTC-12/HTSP-2

■ carrir negotiated transport solvent bar microextraction combined with hplc-uv for prconcentration and determination of trace amounts of dexamethazone sodium phosphate in biological fluids
, Farhad Raofie,
HTC-12/HTSP-2, pp.110-121

■ observations on the effect of oxidation state on the sensitivity of electrothermal atomic absorption specroscopy determinations of tellurium optimization using central composite design
- -, Nahid Mashkoori najafi, , Farhad Raofie, Alireza Ghassempour
iranian seminar of 16th analytical chemistry

Application of Response Surface Methodology for The Optimization of Supercritical Fluid and Ultrasonic–Assisted Extraction of Bioactive Components of Alyssum and Evaluation of Antioxidant Activity ■

نیوشا شیخ الاسلامی، میثاق محمدی، مهرناز کریمی، فرهاد رئوفی

صفحات: ۲۵۴-۲۵۴ ،۹th National Congress on Medicinal Plants

■ Chemical Properties and Optimization of Antioxidant Activity and Extraction Efficiency of internal Septum Extract of Iranian Walnut Obtained from Supercritical Fluid and Sonication Extraction.

ملیکا روغنیها، مهرناز کریمی، میثاق محمدی، فرهاد رئوفی

صفحات: ۲۱۸-۲۱۸ ،۹th National Congress on Medicinal Plants

■ Preparation of stable Nanosuspensions from Fraxinus excelsior fruits by Rapid Expansion of Supercritical Solution into Aqueous Solutions (RESSAS)

میلاد یکه فلاح، فرهاد رئوفی

صفحات: ۲۱۷-۲۱۷ ،۹th National Congress on Medicinal Plants

■ تولیدنانو ذرات با خواص داروئی از عصاره میوه گیاه هلیله سیاه با استفاده از روش انبساط سیال فوق بحرانی

فرهاد رئوفی، زهرا رضوان جو

پنجمین کنفرانس ملی توسعه فناوری نانو، صفحات: ۱-۱۰

■ Micronization of Thebaine extracted from Papaver bracteatum Lindl. using Supercritical fluid technology

فرهاد رئوفی، حمزه صالحی، مهرناز کریمی

پنجمین کنفرانس ملی توسعه فناوری نانو، صفحات: ۲-۱۰

■ با استفاده از سیال فوق بحرانی و ارزیابی خواص آنتی اکسیدانی آن Camptotheca acuminate از گیاه HCPT تهیه نا نو ذرات

فرهاد رئوفی، مهرناز کریمی

پنجمین کنفرانس ملی توسعه فناوری نانو، صفحات: ۱-۱۱

■ Application of Response Surface Methodology for the Optimization of Supercritical Carbon Dioxide Extraction of Curcumin from Thermuric

مریم اشرف خراسانی، فرهاد رئوفی

صفحات: ۹۸۹-۹۸۹ ،۴ th National Congress on Medical Plants

■ EXTRACTION OF FATTY ACIDS FROM CITRUS LEMON SEED USING SUPERCRITICAL CO۲ IN GREEN AND HIGH–TECH SEPARATION PROCESS USIRESPONSE SURFACE METHODOLOGY AND CENTRAL COMPOSITE DESIGN

مرجان صفری، فرهاد رئوفی

صفحات: ۹۹۱-۹۹۱ ،۴ th National Congress on Medical Plants

■ Extraction of fatty acids from zucchini seed using supercritical CO۲ in green and high–tech separation process compare with ultrasound–assisted extraction using response surface methodology and central composite design.

فرهاد رئوفی ،Maryam Ashrafkhorasani

صفحات: ۹۹۰-۹۹۰ ،۴ th National Congress on Medical Plants

thesis and doctoral thesis

■
ZOHREH FALSAFI
2021

■
Mehrnaz Karimi
2020

■
Fatemeh Momen Kiaei
2019

■
2015

M.Sc. Theses

■ Optimization of ultrasound-assisted extraction of bioactive compounds from viscum album l.
SARAH KHAZAEE
2021

■ extraction of pharmaceutical components from froriepia subpinnata using UAE and SFE
Maryam Sharifi mikal
2020

■ Extraction of Effective Medicinal Compounds from the Root and Aerial Part of the Tragopogon graminifolius Plant Using Supercritical Fluids and Ultrasound
Marziyeh Shojaiyan
2020

■ Extraction of essential substances from Sambucus nigra by super critical fluid and ultrasonic
Saba Asafari
2020

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Maryam Rasuli
2019

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Sara Fattahi Mehraban
2019

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Neda Rezaei
2018

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Misagh Mohammadi
2018

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Bahareh Allahdini hasarouieh

2017

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Mahsa Jahanshahifard
2017

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Zahra Rezvanju
2017

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Elnaz Akbari
2016

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Milad Yekefallah
2016

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Marzieh Abdollahi
2015

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Sara Pandidan
2014

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2014

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2013

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Behnaz Daneshvand
2012

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Zahra Akhondpooramiri
2011

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Mina Jokar Doris
2011

Patents & Innovations

■ Method and system for the quantitative chemical speciation of heavy metals and other toxic pollutants
Parisa Ariya, Farhad Raofie, Daniel Deeds
2017

Methos and Systems for the Quantitative Chemical Speciation of Heavy Metals and other Toxic Pollutants ■

Daneil Deeds، Prisa Ariya، فرهاد رئوفی

■ استخراج امگا-۳ و امگا-۵ با استفاده از سیال فوق بحرانی از هسته انار

کتایون مهدوی آرا، فرهاد رئوفی

۲۰۱۶

■ استخراج داروی ضد سرطان کورکومین با استفاده از سیال فوق بحرانی از زردچوبه

مریم اشرف خراسانی، فرهاد رئوفی

۲۰۱۵

■ استخراج داروی تبائین از کپسول خشخاش ایرانی با استفاده از سیال فوق بحرانی دی اکسید کربن بعنوان یک روش سبز باتکنولوژی بالا

فرهاد رئوفی، کتایون مهدوی آرا، مریم اشرف خراسانی

۲۰۱۴