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با سلام خدمت شما استاد/محقق گرامی

مجموعه پیش روی شما بخشی از عملکرد گروه تخصصی گرافدان در سال های اخیر است. گرافدان گروهی دانش بنیان در زمینه بهبود کیفیت گرافیکی پروژه های علمی است.

این گروه زیر نظر اینجانب مهدی صفدریان دانش آموخته دکتری تخصصی نانوتکنولوژی دارویی اداره می شود. در حال حاضر در این گروه فارغ التحصیلانی از رشته های شیمی، زیست شناسی، الکترونیک، فیزیک و ... مشغول به فعالیت هستند.

عمده فعالیت های گروه گرافدان در زمینه طراحی موضوعی و تخصصی انواع پوستر علمی و پوستر همایش ها و نیز طراحی تصاویر گرافیکال ابسترکت (GRAPHICAL ABSTRACT) یا چکیده تصویری برای مقاله های علمی است. امیدوارم من و همکارانم در پروژه های علمی پیش روی شما بتوانیم همکاری مفیدی با شما داشته باشیم.

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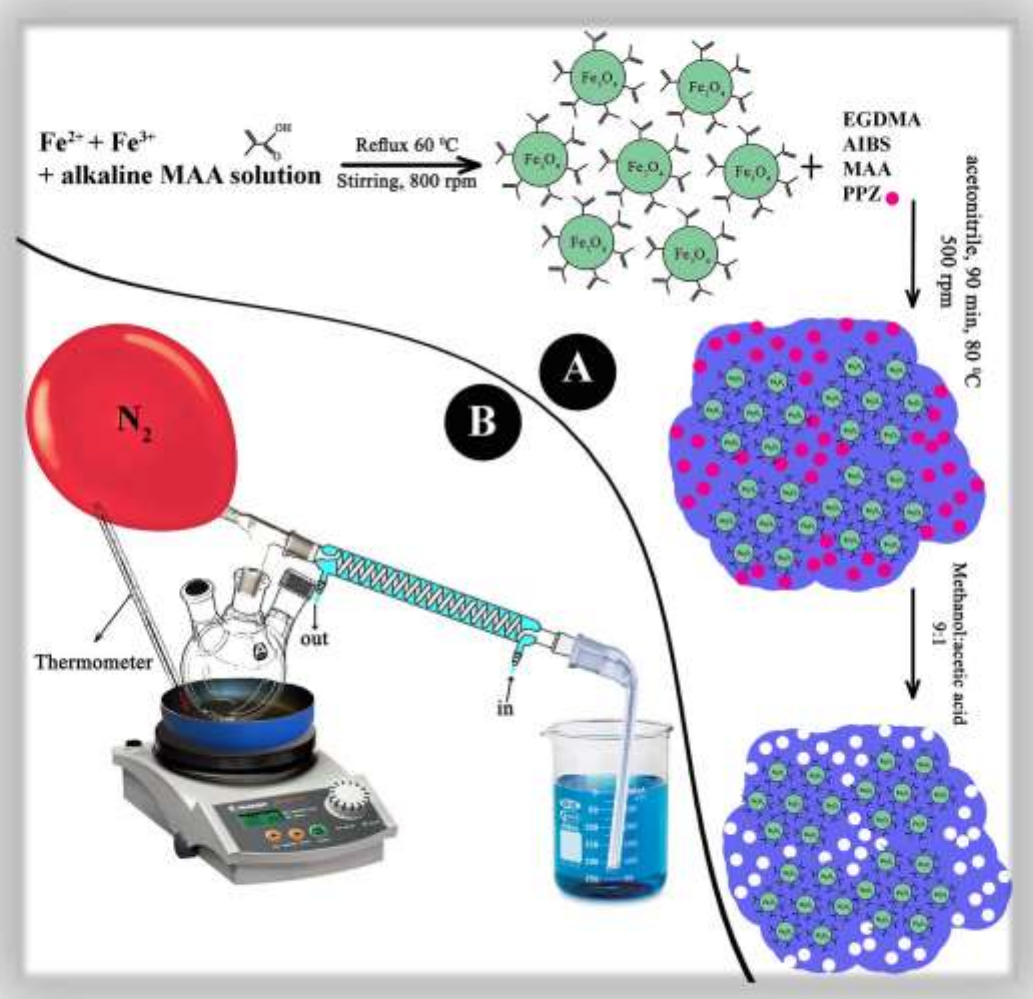

Journal of Chromatography A

Impact Factor: 4.2

Corresponding author: Z. Ramezani
Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

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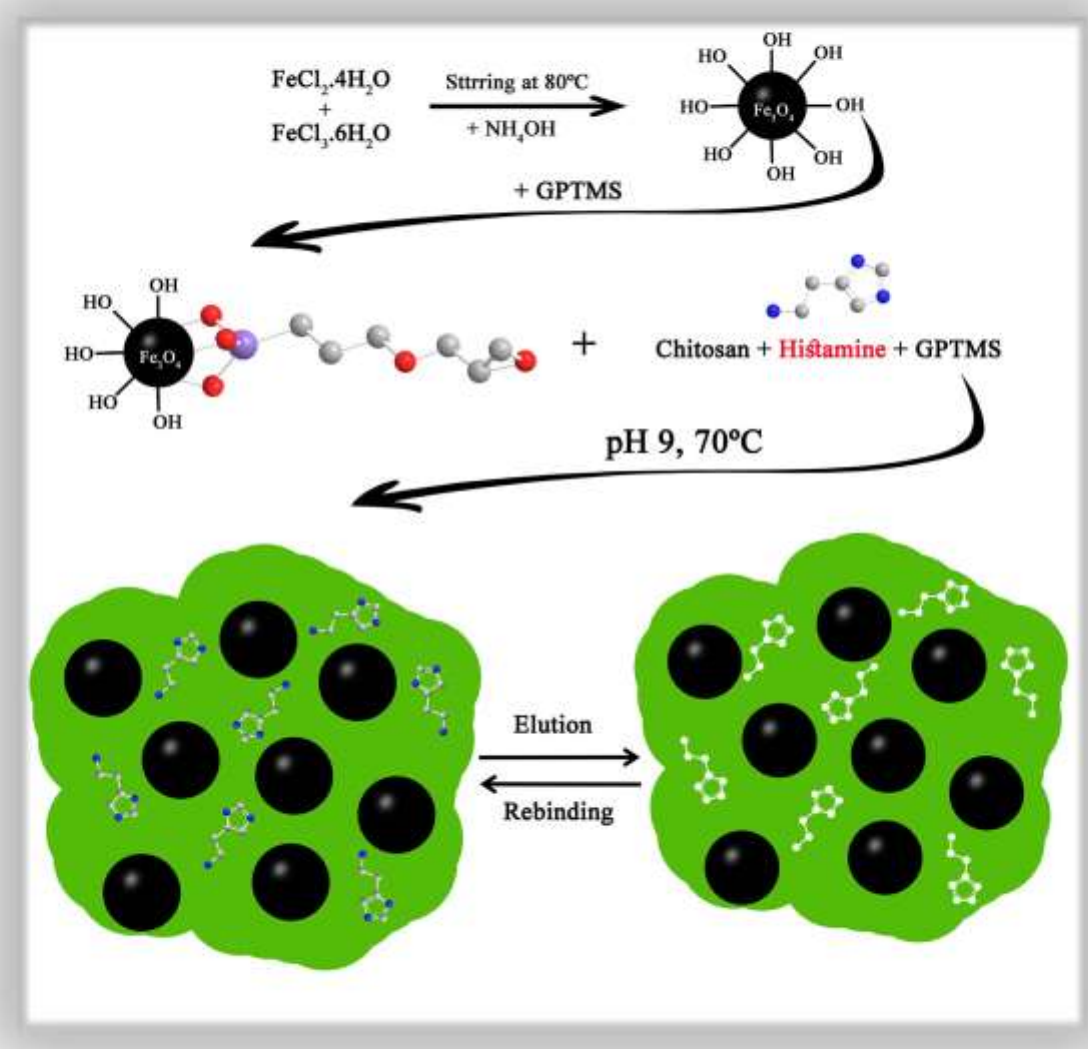
Graphical abstract 1



Carbohydrate Polymers

Impact Factor: 4.811

Corresponding author: Dr M. Hashemi
Bu-Ali Sina University, Hamedan, Iran

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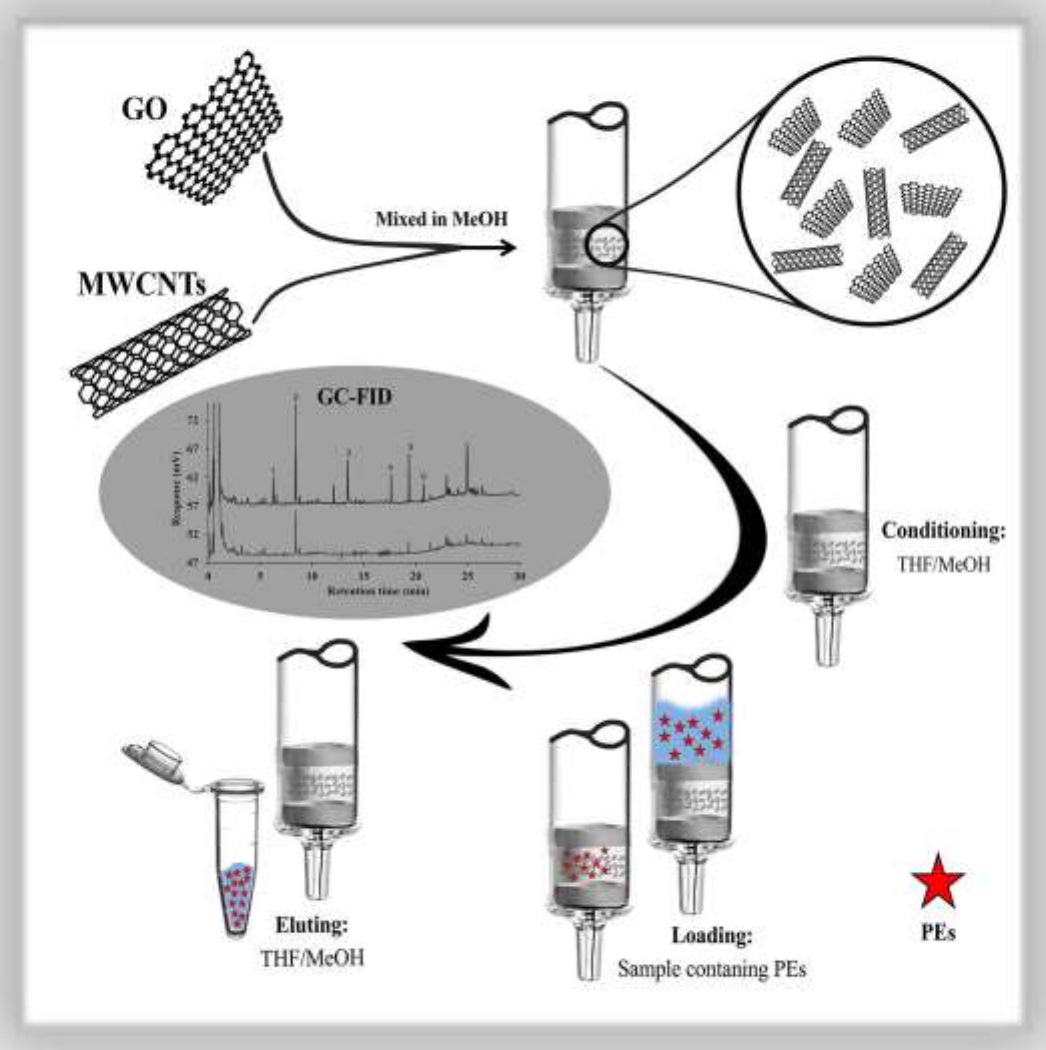

Analytical Methods

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Khorramshahr University of Marine Science and Technology, Iran

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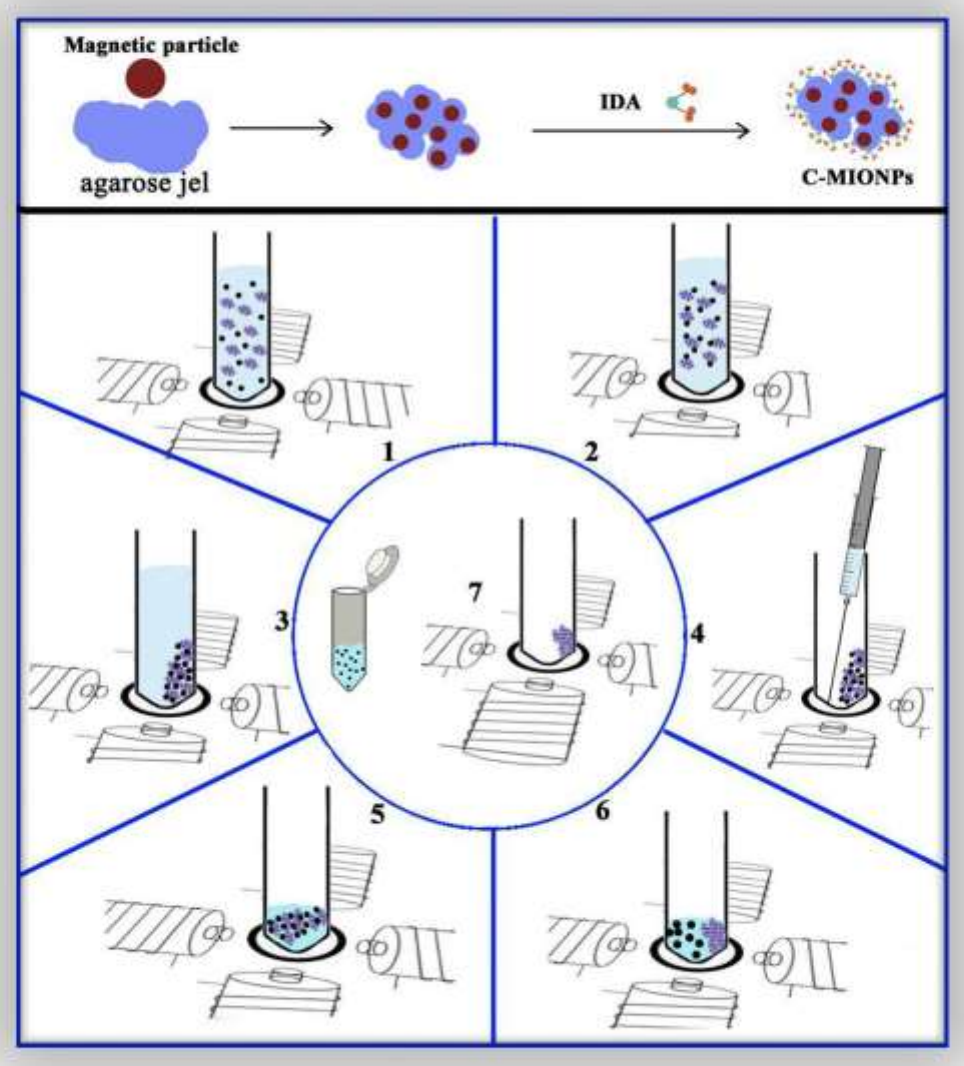

Analytica Chimica Acta

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Corresponding author: Dr. P. Hashemi
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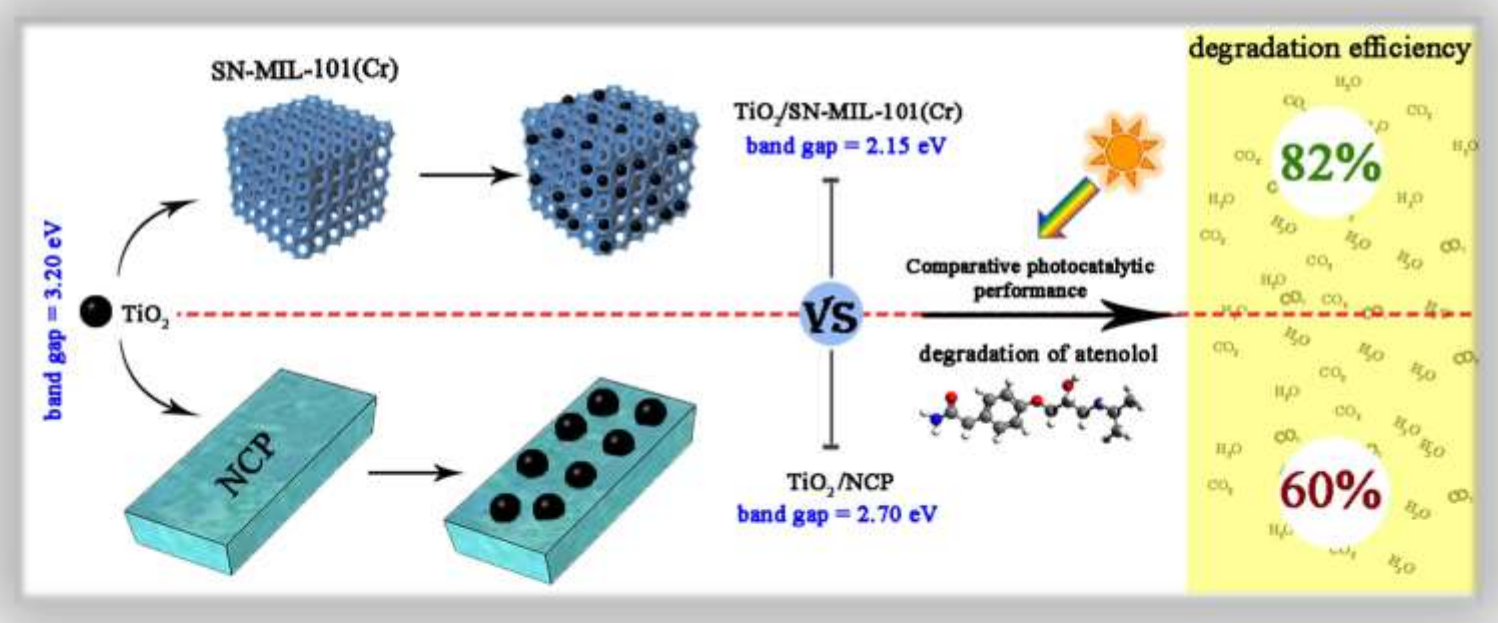
Graphical abstract 4



Journal of Photochemistry and Photobiology A: Chemistry

Impact Factor: 2.625
Corresponding author: Dr. H. Faghihian
Shahreza Branch, Shahreza, Iran

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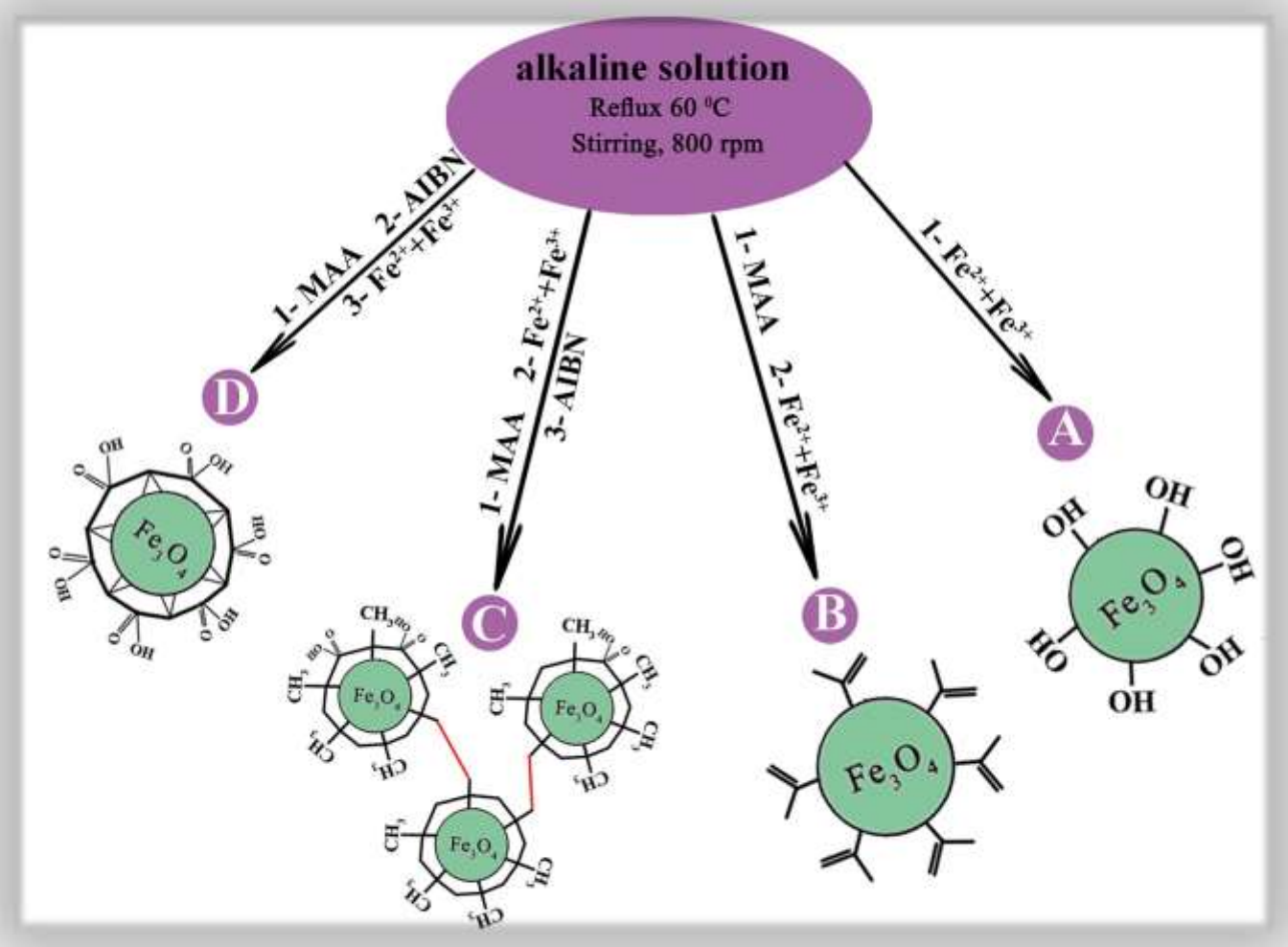
Graphical abstract 5



Colloids and Surfaces A: Physicochemical and Engineering

Impact Factor: 2.714

Corresponding author: Dr. Z. Ramezani
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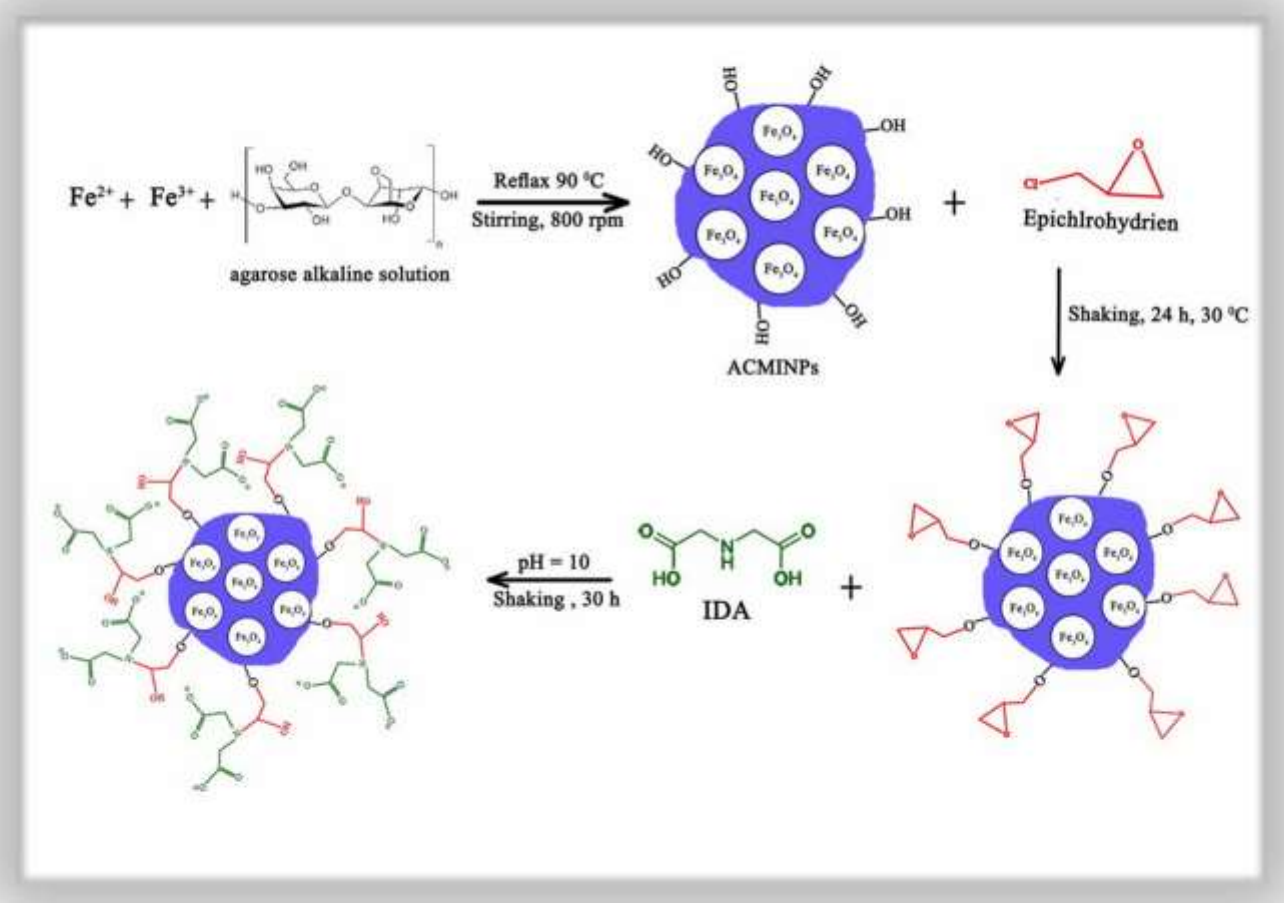
Graphical abstract 6



Analytica Chimica Acta

Impact Factor: 4.950

Corresponding author: Dr. P. Hashemi
Lorestan University, Khoramabad, Iran

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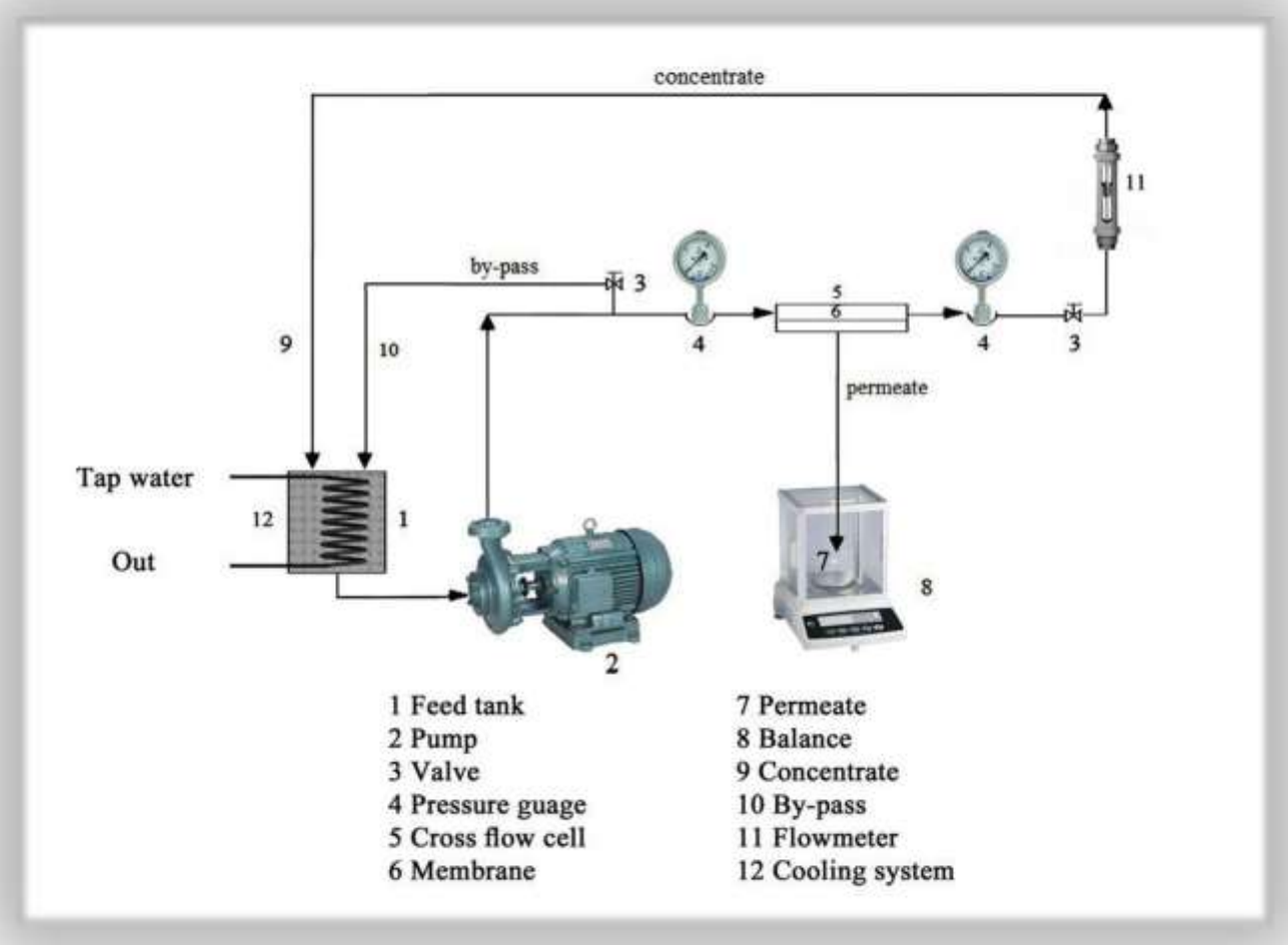
Graphical abstract 7

Annual Report
GRAPHDAN



Desalination

Impact Factor: 5.527
Corresponding author: Dr. Y. Mansourpanah
Lorestan University, Khoramabad, Iran

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Graphical abstract 8

Iran MS Society
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ajums
14th International Congress of
Multiple Sclerosis

Cross-Cultural Evaluation of Psychometric Properties of the High-Level Language Test (BeSS) in Persian Speakers

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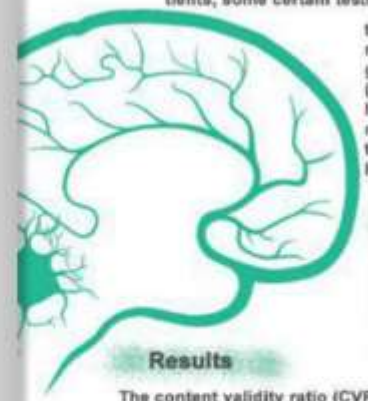
Introduction

Patients with progressive neurological diseases such as Multiple Sclerosis (MS) experience speech production impairment as well as language disorders. One of the language impairments observed among patients is high-level language skills impairment. Language problems cause defects in individuals' quality of life. Therefore, in order to prevent decreased quality of life, diagnosis of language disorders is of high importance in the early stages of the disorder. To evaluate language disorders in progressive neurological patients, some certain tests have been used which lacked sufficient sensitivity and complexity to determine the features of language skills precisely. Therefore, researchers are making tests with sufficient accuracy and complexity to investigate high-level language disorders. One of these tests is called Bedomning av Subtila Sprakstorningar (BeSS). Due to the lack of accurate measurement tools in clinical environments in Iran, This can cause inappropriate treatment programs to be implemented which may in turn affect individuals' quality of life negatively. Therefore, this study aimed to investigate Cross-Cultural Evaluation of Psychometric Properties of the High-Level Language Test BeSS in Persian Speakers.

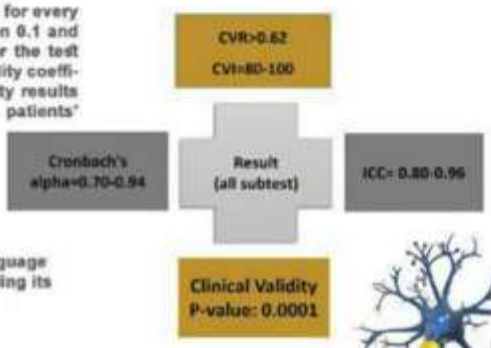


Methods

This study was conducted on 20 MS patients affiliated to Khuzestan MS association as well as 20 healthy individuals. After translating BeSS to Persian, its content validity was determined based on 10 experts working in the same field. Also, the reliability of the test was determined using techniques such as test-retest method, Cronbach's alpha and clinical validity.

Results

The content validity ratio (CVR) was higher than 0.62 for every subtest and content validity index (CVI) was between 0.1 and 0.8 for all subtests. Cronbach's alpha coefficient for the test and subtests was between 0.7 and 0.94 and repeatability coefficient (ICC) was between 0.8 and 0.96. Clinical validity results showed significant difference between means of patients' scores and healthy subjects scores ($p = 0.0001$).

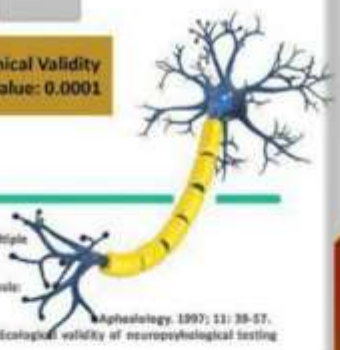


Conclusion

The Persian version of BeSS seems to benefit from high reliability and validity values. Thus, speech therapists can use this test to examine high-level language disorders in MS patients with relative certainty regarding its reliability and validity.

Key words

BESS, high-level language skills, MS



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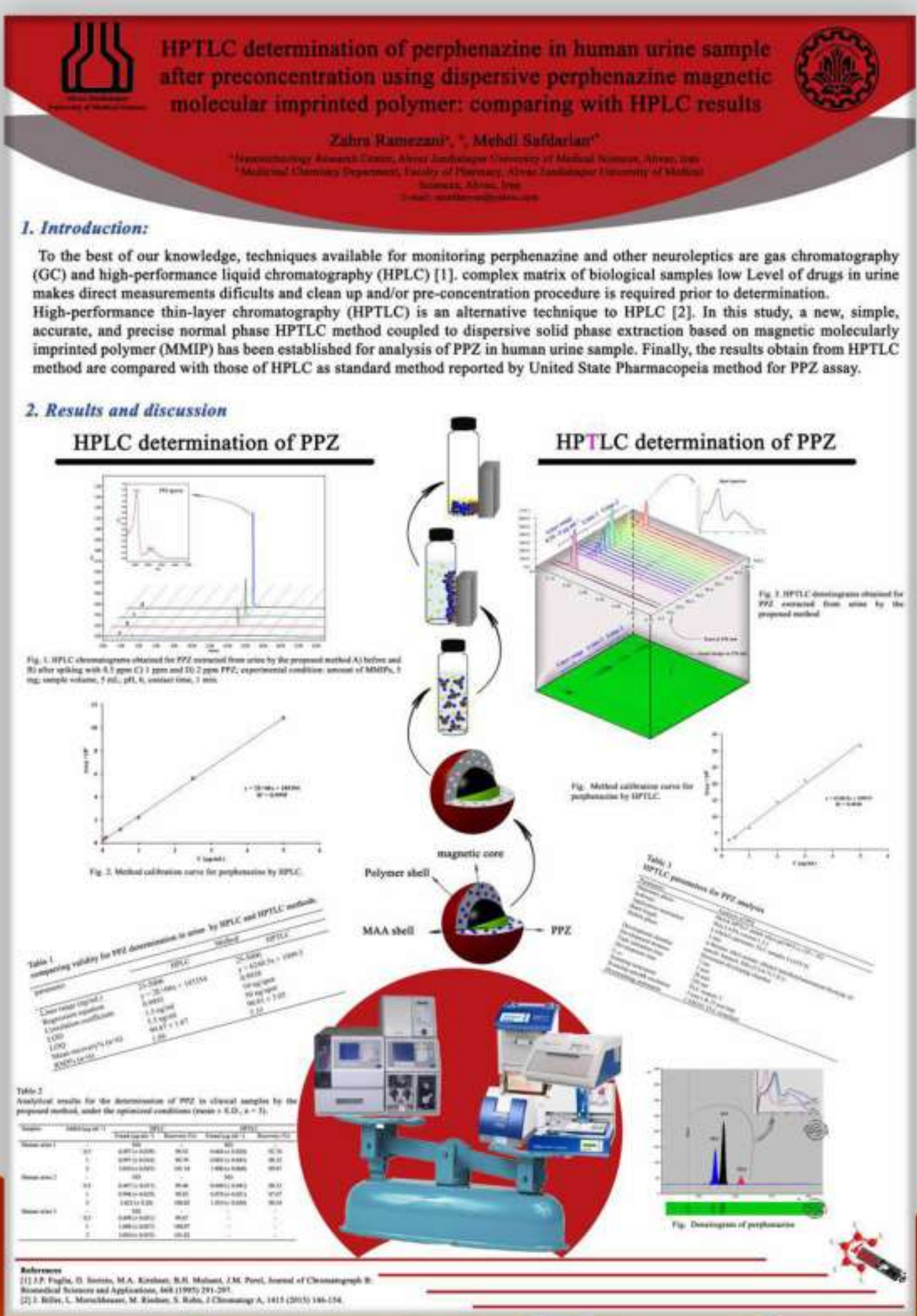
Scientific poster 1



HPTLC determination of perphenazine in human urine sample after preconcentration using dispersive perphenazine magnetic molecular imprinted polymer: comparing with HPLC results

Zahra Ramezani[a,*], Mehdi Safdarian[a]

1. Introduction:

To the best of our knowledge, techniques available for monitoring perphenazine and other neuroleptics are gas chromatography (GC) and high-performance liquid chromatography (HPLC) [1]. complex matrix of biological samples low Level of drugs in urine makes direct measurements dificults and clean up and/or pre-concentration procedure is required prior to determination.

High-performance thin-layer chromatography (HPTLC) is an alternative technique to HPLC [2]. In this study, a new, simple, accurate, and precise normal phase HPTLC method coupled to dispersive solid phase extraction based on magnetic molecularly imprinted polymer (MMIP) has been established for analysis of PPZ in human urine sample. Finally, the results obtain from HPTLC method are compared with those of HPLC as standard method reported by United State Pharmacopeia method for PPZ assay.

2. Results and discussion

HPLC determination of PPZ

HPTLC determination of PPZ

Fig. 2. Method calibration curve for perphenazine by HPLC.

Fig. Method calibration curve for perphenazine by HPTLC.

Fig. Densitogram of perphenazine

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Scientific poster 2

Protective effect of Diosmin against cisplatin-induced kidney injury in rats

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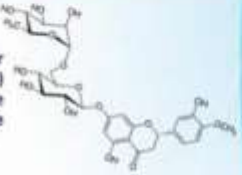
[2] Toxicology Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran
[3] Cellular and Molecular Research Center, Department of Anatomical Sciences, Faculty of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

Introduction and background

Cisplatin (Cis) is one of the most potent chemotherapeutic antitumor drugs, however there is a concern due to its toxic side effects especially on renal tissue. Diosmin (Do) a citrus flavonoid which shown anti-inflammatory, antimutagenic and antioxidative properties resulting from its structure. This study was undertaken to investigate the preventive effect of Do in nephrotoxicity induced by Cis in male rats.

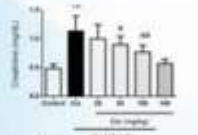


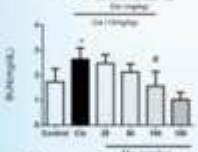
Methods

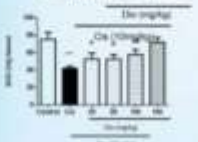
In this experimental study, Wistar male rats were divided randomly into six groups of six in each group. The control group received saline; Cis treated group; Cis+Do treated group and Do treated group. Rats were pretreated with Do (25, 50, 100 mg/kg/day, ip) for 8 consecutive days and Cis (10 mg/kg BW, ip) was administrated on the 6th day. Blood samples were collected to determine serum creatinine (Cr), urea, uric acid and blood urea nitrogen (BUN) levels. Malondialdehyde (MDA), glutathione (GSH), and antioxidant enzymes activity catalase (CAT), superoxide dismutase (SOD) and Glutathione peroxidase (GPx) activity were assayed in left renal tissue. The right kidney was maintained in 10% formalin for Hematoxylin and Eosin (H&E) staining and histological examination.

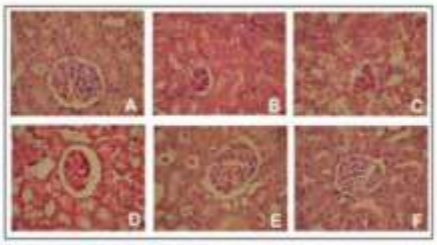
Results

Results showed a significant increase in the levels of MDA, Cr and BUN, and decrease of GSH, CAT, GPx and SOD activity by Cis administration. Pre-treatment with Do Showed reduction in the levels of MDA , Cr and BUN and increase of GSH , CAT, GPx and SOD activity in all doses but the most significant alteration was observed at doses of 100 mg/kg (P<0 .05). Additionally the nephroprotective effect of the Do was established by the histological examination of the kidneys.

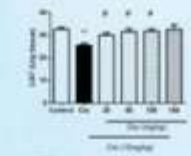


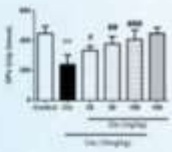


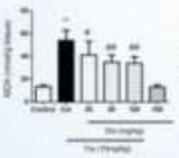


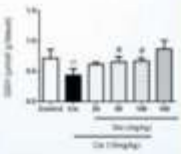


Histopathological observations (kidney sections stained with Hematoxylin & Eosin, magnification x 100) showing effects of Diosmin on Cisplatin -induced nephrotoxicity changes in rats kidney. (A) Normal, (B) Cisplatin treated group, (C), (D) and (E) are Cisplatin group pre-treated with 25, 50 and 100 mg/kg of Diosmin, respectively. (F) is Diosmin treated group









Keywords
Nephrotoxicity
Diosmin
Cisplatin
Rats

Conclusion

Our results indicated that Do have produced amelioration in biochemical indices and oxidative stress parameters against Cis-induced nephrotoxicity.

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Scientific poster 3

Study the effect of methanolic extract of Persian shallot against lipid peroxidation in liver, kidney, brain and it's antioxidant capacity in rat serum

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[2]Medicinal Plants Research Center and Department of Pharmacognosy Faculty of Pharmacy, Ahvaz Jundishapur University of Medical Sciences
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Introduction and background

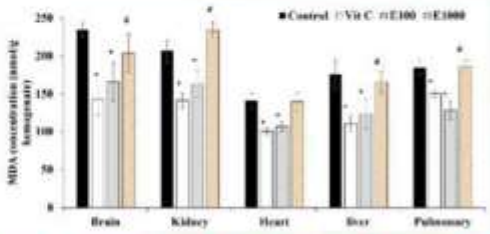
Free radicals can cause tissue damage and diseases such as cancer, arthritis, athrosclerosis, diabetes, etc. So harmless antioxidants can be used to prevent diseases related to free radicals. Some plants are important sources of harmless antioxidants compound with different structures. Allium hirtifolium which is used as edible and also recognized plant in Iran traditional medicine is useful for trapeutic uses such as cardiovascular and athrosclerosis diseases.

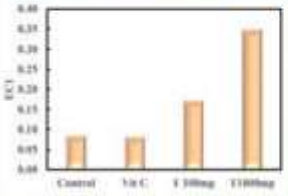
Methods

Crude extract of Allium hirtifolium was prepared with maceration method. Normal male rats were fed with dose of 100 and 1000 mg/kg of crude extract; vitamin C was used as positive control. Using thiobarbituric acid (TBA) method, malondialdehyde concentration was determined to be a marker of lipid peroxidation of brain, kidney, heart, liver and pulmonary tissues. Antioxidative capacity of the serum was evaluated by DPPH, FRAP and ABTS assays.

Results

Results indicate that compared to the control group, extract of 100 mg/kg could reduce the lipid peroxidation of normal rats' brain, kidney. Heart, liver and pulmonary tissues but with the dose of 1000 mg/kg lipid peroxidation increased and became almost identical to the control group. The dose of 100 mg/kg, in comparison with the dose of 1000 mg/kg, could increase the antioxidative capacity in DPPH and ABTS assays but in FRAP assay, the 1000 mg/kg dose was more powerful.





Antioxidative capacity in FRAP assay

Discussion and Conclusion

Results showed that Allium hirtifolium extract (100 mg/kg dose) can reduce lipid peroxidation in different tissues and increase the antioxidative capacity of the serum but a reversal result can be achieved by increasing the dose.

Keywords

Allium hirtifolium
Lipid peroxidation
Antioxidant
DPPH
FRAP
ABTS

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Scientific poster 4

Review of effect of bupropion on attenuates methamphetamine self-administration in adult male rat

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[2]Pharmacognosy research center, school of pharmacy,Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.
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Introduction

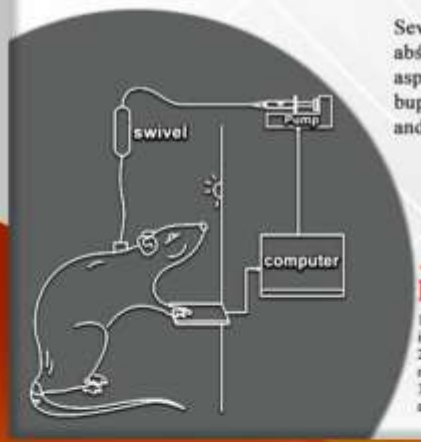
Methamphetamine is a highly potent, addictive drug that is widely abused in many countries around the world. methamphetamine produces a general state of well-being along with increased wakefulness, talkativeness, and physical activity and decreased appetite. Behavioral treatment programs have had some success in the treatment of methamphetamine addiction, yet many patients continue to relapse after repeatedly seeking treatment. Thus, pharmacotherapies treatments for methamphetamine addiction are being evaluated.
Bupropion is an atypical antidepressant with stimulant properties. This drug has been used off-label to treat methamphetamine addicts, thus prompting the need for systematic investigations of its efficacy.

Method and material

male Wistar rats, weighing 200–250 g(8 weeks old) at the start of the experiment.For surgery, rats were anesthetized with 2–3% of isoflurane mixed in oxygen. They were implanted with a silastic catheter (0.3×0.64mm OD; Dow Corning Co.) into the right external jugular vein under aseptic conditions. After the surgery rats were trained to press a lever of methamphetamine reinforcement (0.05 mg/kg/injection of methamphetamine hydrochloride) in operant boxes under baseline conditions (1h access per day for ten days / 6 h per session for 17 sessions).
When responding stabilized, rats entered the acute testing phase. Each rat was tested with a unique order of vehicle, 10, 30, and 60 mg/kg bupropion. Each solution was administered IP 5 min before placement in the chamber for a regular self-administration session and each test was separated by at least 2 maintenance days of methamphetamine self-administration without drug pretreatment.

Results

bupropion pretreatment appeared to decrease active lever responding. Consistent with the active lever data, rats treated with 60 mg/kg bupropion took significantly fewer total methamphetamine infusions in comparison to the other 2 groups. When Control rats (n=6) (i.e., those pretreated with saline in the previous phase) were given an acute injection of 30 mg/kg bupropion, lever pressing decreased



Discussion

Several questions remain about bupropion's impact during withdrawal, abstinence, and relapse in a preclinical setting. Research investigating these aspects of addiction will help provide a clearer picture on the effects of bupropion on methamphetamine self-administration in laboratory animals and methamphetamine abuse in humans.

keywords

subject-rated drug effects
physiological drug effects
self-administration
methamphetamine
bupropion

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Scientific poster 5

A new dispersive liquid–liquid microextraction device for cold column solidification and trapping of organic phase

Payman Hashemi,* Mehdi Safdarian, Malihe Naderlo, Ali Reza Ghiasvand
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1. Introduction:

Depending on the nature of the analyte there are many methods for preconcentration, separation and determination [1] such as liquid-phase microextraction [2], single-drop microextraction [3] and dispersive liquid–liquid microextraction (DLLME) [4]. A critical step in all these methods is to separate organic compounds from aqueous phase [1,2]. We have designed a homemade new portable device with the ability of temperature programming to solidify and separate micro volumes of organic solvents from aqueous phase and *eliminate the centrifugation step* in DLLME method.

2. Apparatus and DLLME-CCT Procedure

A column with 3 mm diameter and 40 mm length was drilled in a block of Plexiglass and filled with glass particles with average diameters of 500 µm.

The column block was sandwiched between a pair of thermal electric coolers (TEC), equipped with two heat sinks and twin fans. A temperature sensor was embedded in a hole in the Plexiglass piece.

A controller unit consisted of an interface device with LCD character was assembled and programmed for column temperature controlling. A 3 ml glass syringe was fixed on top of the column. The column temperature could be set with an accuracy of 0.1 °C within a working temperature range of -10

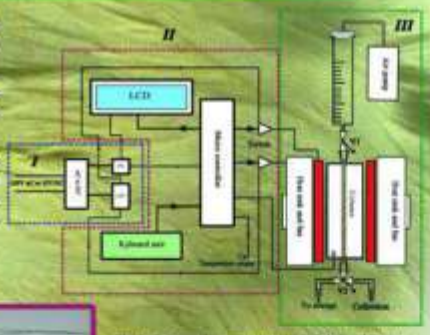

Fig.1. Schematic representation of the main parts of the DLLME-CCT device

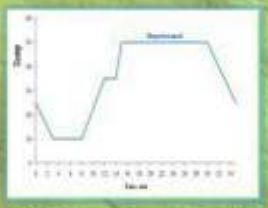

Fig.2. The temperature program applied to the column for the DLLME-CCT system.

3. Results and discussion:

The system was successfully used for the extraction of curcumin from serum samples. Recoveries higher than 90% and relative a standard deviation of 2.87% was obtained for 5 replicated analysis of curcumin. The detection limit of curcumin determination was calculated to be 28 ng mL-1.

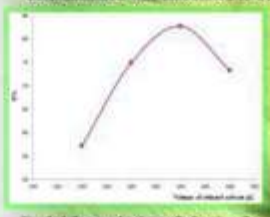

Fig. 3. Influence of volume of ethanol as the eluent of curcumin on its extraction recovery (E %) in the DLLME-CCT system using 10 and 35 °C as the minimum and maximum column temperatures, respectively.

Fig 4. Influence of aqueous phase volume on the extraction recovery (E %) of curcumin in the DLLME-CCT system using 400 µL as the eluent volume.

Table 1. The results obtained for the human serum samples, before and after spiking by 1 mg L^{-1} curcumin. A CF of 1.14 was applied for the calculations.

Sample no.	Before spike, mg L^{-1}	After spike, mg L^{-1}	Recovery, %
1	0.031 ± 0.005	1.015 ± 0.012	98.3
2	0.045 ± 0.011	1.003 ± 0.002	97.8
3	0.068 ± 0.017	1.037 ± 0.046	100.4

The designed CCT device is inexpensive, portable and easily operated and may be adapted to a wide range of organic solvents. The system can be potentially used for both lighter and heavier than water organic solvents. Being a portable device, allows the use of the DLLME-CCT system both in the laboratory and for on-site applications.

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Scientific poster 6

OP-0048 Postpartum metabolic outcomes in obese or overweight women with gestational diabetes

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Background

A history of gestational diabetes mellitus (GDM) is an important predictor of many metabolic disturbances later in life(1,2). A part from GDM, obesity as a global health concern has not only been associated with higher risk of cardiovascular disease, but also its association with mortality has shown in previous report(3).

Aim

We set out to determine the rate of glucose intolerance and metabolic syndrome at 6-12 weeks postpartum in women with gestational diabetes. Additionally, contributing risk factors and potential differences between obese and overweight women with women with normal body mass index were assessed.

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Method

In this ongoing population-based prospective cohort study (LAGAs) 176 women with GDM pregnancy underwent a fasting glucose test, 75-g oral glucose tolerance and fasting lipid tests at 6-12 weeks postpartum in Ahvaz (southwestern of Iran) in 2016.

GDM was defined based on International Association of Diabetes and Pregnancy Study Groups (IADPSG) criteria. Postpartum glucose intolerance was defined according to ADA criteria and metabolic syndrome using 2 sets of criteria, National Cholesterol Education Program Adult Treatment Panel (NCEP ATP III) and International Diabetes Federation (IDF) criteria.

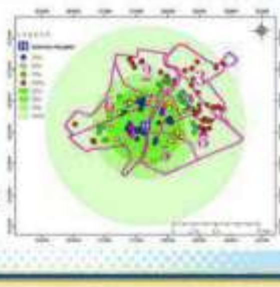
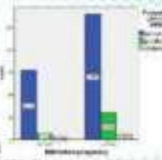


Figure 1. Women who attended for postpartum follow up based on distance from center of cohort (Golestan Hospital)

Results

Of 176 women with GDM 71.6% had BMI≥ 25 before pregnancy (30.1% were obese and 41.3% were overweight).Incidence of glucose intolerance at 6-12 weeks after GDM pregnancy in women with pre-pregnancy excess BMI was 25.4% (28.3% in obese women with GDM vs 23.3% in overweight women). Incidence of progression to glucose intolerance was 14% in women with normal pre-pregnancy body mass index.

Rate of metabolic syndrome at 6-12 weeks postpartum was 23.8% in overweight and obese women with GDM vs 4% in GDM- exposed women with normal pre-pregnancy BMI by NCEP-ATP III criteria and 23.8% in women with overweight and obese women vs 14% in women with normal pre-pregnancy BMI by IDF criteria.



Pre-pregnancy overweight or obesity, (OR 1.89, 95% CI: 1.05-3.38, P=0.03) was associated risk factors for the presence of MetS in GDM-exposed women.

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Table1. Mean (SD) of Demographic, Clinical and biochemical characteristics of women with gestational diabetes (diagnosed by IADPSG criteria)

Variable	[illegible]		P value
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Table2. Distribution of metabolic syndrome and its components in women with gestational diabetes in accordance with NCEP-ATP III and IDF criteria at 6-12 weeks postpartum (based on BMI)

Discussion

Rate of postpartum glucose intolerance and metabolic syndrome is high in GDM women with high pre-pregnancy BMI Early postpartum screening for metabolic syndrome must be a priority as well as glucose status in women with gestational diabetes particularly those who start pregnancy with excess body mass index.

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IPSC 2017

Evaluation of the Protective Effects of Quercetin Against Methimazole-Induced Hepatotoxicity in Mice

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Introduction

Liver is the organ that plays the most important role in body's physiology and maintaining metabolic homeostasis of the body [1]. Methimazole (MMI) is the most prescribed drug for managing hyperthyroidism in humans. However, hepatotoxicity is a deleterious side effect associated with MMI administration [2]. Quercetin is one of the most important bioflavonoids present in plants which is known for its multiple pharmacological activities [3].
The present study was designed to evaluate the possible hepatoprotective effects of quercetin, against methimazole-induced hepatotoxicity in mice.

Methods

Thirty five mice were randomly divided into five groups (7mice in each group), group one received normal salin as control group, group two received MMI (100 mg/kg i.p), and groups 3-5 received (70, 140 and 280 mg/kg i.p) Quercetin respectively + MMI for 5 days. On the fifth day, all groups received hexobarbital sodium (25 mg/kg, i.p) and sleeping time of all mice was recorded. After 24 hours mice were sacrificed. Serum and tissue biomarkers such as alanine aminotransferase (ALT), aspartate aminotransferase (AST), reduced glutathione (GSH), malondialdehyde (MDA) and histopathological studies eval-

Results and Discussion

The present study revealed that MMI (100mg/kg) Produced significant elevations in ALT, AST. Increased level of aminotransferases showed that the integrity of hepatocytes was abnormal in MMI alone treated mice. Administration of Quercetin prevented MMI-induced elevations of ALT and AST as compared to MMI alone treated group (figure1 and 2).

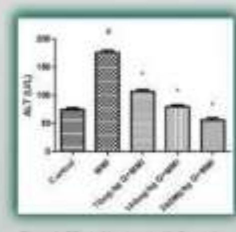

Figure 1: Effect of treatment with Quercetin on serum ALT level

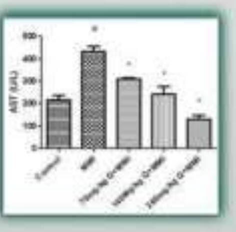

Figure 2: Effect of treatment with Quercetin on serum AST level

We also observe a remarkable decrease in the level of GSH in MMI group animals compared to control group.
Reduction in glutathione reservoirs in hepatocytes treated with MMI, indicates that GSH has a critical role in detoxifying MMI metabolites and preventing cellular damage (figure 3).
Lipid peroxidation of unsaturated fatty acids is a commonly used index of increased oxidative stress and subsequent cytotoxicity [4]. We observed a significant increase in the concentration of MDA in liver of MMI alone treated mice. However, Pretreatment of mice with Quercetin prevented the MMI-induced increase in MDA as Compared to MMI group (figure 4).

The results showed that MMI significantly increased sleeping time, ALT, AST and MDA level and decreased GSH level when compared with control group($p<0.05$). Pretreatment with Quercetin in all doses, prevented MMI-induced alternations in serum aminotransferases and MDA, as well as glutathione ($p<0.05$).

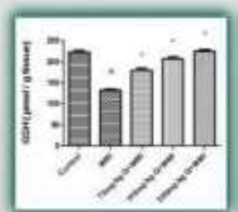

Figure 3: Alternations in reduced glutathion (GSH) content

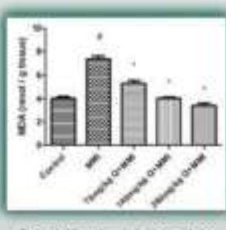

Figure 4: Alternations in lipid peroxidation activity

Histopathological investigations demonstrated that MMI-induced various changes such as inflammation in hepatocytes which confirmed the biochemical data. Treatment with Quercetin obviously mitigated the histopathological changes induced by MMI (figure 5). Histopathological findings supported the biochemical results.

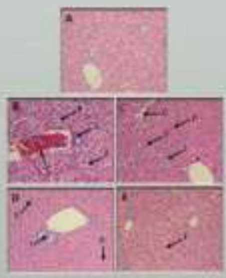

Figure 5: Histopathological evaluation of MMI toxicity in mice liver. (A) Control group, (B) treated with 100mg/kg MMI, (C, D, E) treated with 70mg/kg, 140mg/kg, 280mg/kg respectively along with 100mg/kg MMI. H&E Stain. F: fat deposit; C: congestion of RBCs; I: infiltration of inflammatory cells; P: pyknosis

Conclusion

In conclusion, our data indicate that quercetin exhibited hepatoprotective activity against methimazole-induced hepatotoxicity possibly through its antioxidant activity and effective in structural improvement of liver.

Keywords

Hepatotoxicity, Methimazole, Quercetin, Mice.

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Scientific poster 8

P-0966 Pharmacological intervention and postpartum metabolic outcomes in women with gestational diabetes

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Background

Need for treatment with insulin or metformin in pregnancy as an indicator of severity of hyperglycemia may reflect impairment in β-cell function in women exposed to gestational diabetes[1]. β-cell impairment has been associated with severity of MetS in adults[2].

Aim

We set out to determine the rate of glucose intolerance and metabolic syndrome at 6-12 weeks postpartum in women with gestational diabetes those requiring insulin or metformin for management of hyperglycemia.

Method

In this ongoing population-based prospective cohort study 176 women with GDM pregnancy underwent a fasting glucose test, 75-g oral glucose tolerance and fasting lipid tests at 6-12 weeks postpartum. GDM was defined based on International Association of Diabetes and Pregnancy Study Groups (IADPSG) criteria.
Postpartum glucose intolerance was defined according to ADA criteria and metabolic syndrome using 2 sets of criteria, National Cholesterol Education Program Adult Treatment Panel (NCEP ATP III) and International Diabetes Federation (IDF) criteria.

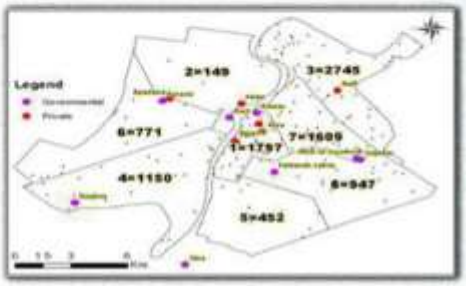

Figure 1. Distribution of delivery and GDM in 8 area of Ahvaz city.

Results

Of 176 women with gestational diabetes 34 women (19.3%) required insulin or metformin for control of hyperglycemia in pregnancy.

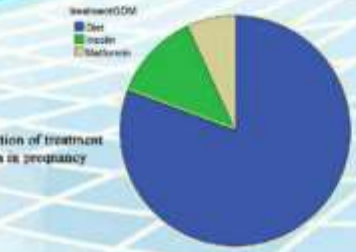

figure2. Distribution of treatment of hyperglycemia in pregnancy

Mean age of drug users was 31.0 (SD, 4.67) years. Rate of postpartum glucose intolerance in women who were treated with insulin was 54.4% versus 41.7% in women who had taken metformin while the same rate was 15.4% in diet-only group. Pharmacotherapy for management of hyperglycemia in pregnancy was strong predictor of progression to abnormal glucose tolerance at 6-12 weeks postpartum (OR 3.14; 95% CI; 1.20- 8.21).
Rate of metabolic syndrome at 6-12 weeks postpartum in women who need pharmacotherapy for control of hyperglycemia was 35.3% in insulin or metformin users by NCEP-ATP III criteria (vs 14.1% in women treated with diet only) and 41.2% by IDF criteria (vs 16.2% in women treated with diet only). Requiring insulin or metformin for treatment of hyperglycemia in pregnancy was associated risk factors for the presence of MetS in GDM-exposed women(OR 3.08, 95% CI: 1.25-7.60, P=0.01).

Table 1 Mean (SD) of Demographic, Clinical and biochemical characteristics of women with gestational diabetes (diagnosed by IADPSG criteria

Table 2. Distribution of metabolic syndrome and its components, in women with gestational diabetes in accordance with NCEP-ATP III and IDF criteria ,6-12 weeks postpartum based on kind of hyperglycemia treatment in pregnancy

Discussion

Rate of postpartum glucose intolerance and metabolic syndrome is high in GDM women particularly in women who were treated with insulin or metformin (about 2.5-fold higher rate compared with diet-treated women) . Early postpartum screening for metabolic syndrome must be a priority as well as glucose status in women with gestational diabetes those required pharmacotherapy in pregnancy.

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Scientific poster 9

بررسی اثرات درمان دستی بر فضای واکه‌ای مراجعین خانم مبتلا به بدآوایی ناشی از تنش عضلانی

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مقدمه:

بدآوایی ناشی از تنش عضلانی یک اختلال صدای رایج است که اغلب در بیمارانی با شغل‌های استرس‌زا و تقاضاهای زیاد روی استفاده از صوتشان دیده می‌شود (۱). این اختلال توسط تنش بیش از حد در عضلات پارافارینژیال و سوپراهایوید، چینک خلفی باز، بالا رفتن حنجره و تغییرات مکرر موکوزی روی تارهای صوتی مشخص می‌شوند. درمان دستی یکی از درمان‌های مورد استفاده برای دیسفونی ناشی از تنش عضلانی است (۲). در روش درمان دستی حنجره هدف این است که با کاهش تنش عضلات خارجی و اصلاح جایگاه حنجره، ویژگی‌های پارامترهای صوتی تغییر یابد و کیفیت صدا بهتر شود (۳). تاکنون اثرات فوری درمان دستی ثابت شده است ولی هدف در این مطالعه به تاثیر یک دوره صوت درمانی با روش درمانی دستی بر فضای واکه‌ای در مراجعین مبتلا به دیسفونی ناشی از تنش عضلانی پرداخته شد.

مواد و روش ها:

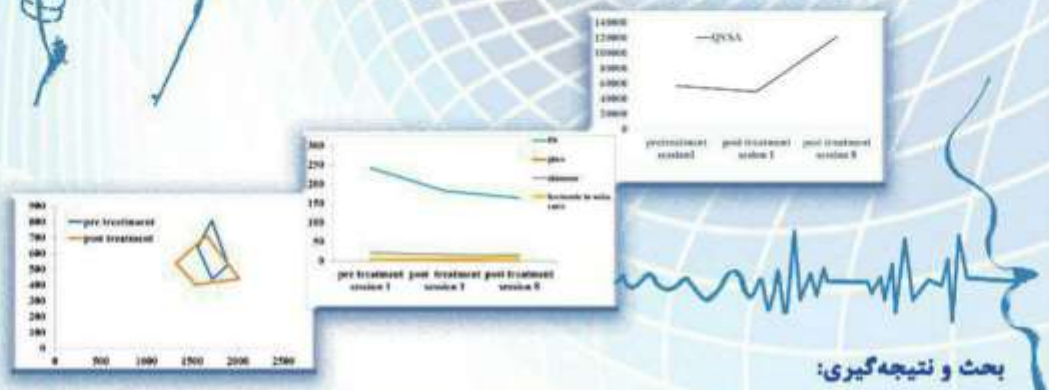
در این مطالعه ۴ زن مبتلا به دیسفونی ناشی از تنش عضلانی طی هشت جلسه با استفاده از روش Roy تحت درمان قرار گرفتند. صدای نمونه‌ها قبل و بعد از جلسات درمانی اول و هشتم ضبط شد و با استفاده از نرم‌افزار PRAAT تحلیل شد و فرمنت اول و دوم چهار واکه‌ی /a,i,u,e/ استخراج گردید. سپس با استفاده از فرمول:

$$0.5 \times \{(F2_i \times F1_a + F2_e \times F1_u + F2_a \times F1_i + F2_u \times F1_e) - (F1_i \times F2_a + F1_a \times F2_u + F1_u \times F2_e + F1_e \times F2_i)\}$$

فضای واکه‌ای قبل و بعد از درمان محاسبه شد. برای تجزیه و تحلیل داده‌ها از نرم‌افزار spss نسخه‌ی ۲۲ و از آزمون تی زوجی استفاده شد.

نتایج:

میانگین نمرات فضای واکه‌ای برای جلسه اول و هشتم به ترتیب ۷۱۷۷۶ و ۳۰۸۲۲۲، انحراف معیار به ترتیب ۴۱۵۰۳، و ۱۳۲۴۸۲، بود. میانگین فضای واکه‌ای بعد از درمان به طور معناداری بیشتر از قبل از درمان بود (Pvalue<۰/۰۰۰۱).



بحث و نتیجه‌گیری:

اگرچه درمان دستی روی تولید تمرکز نمی‌کند ولی بهبود در آکوستیک‌های تولیدی مشاهده شده است. افراد مبتلا به دیسفونی ناشی از تنش عضلانی به صورت همزمان تنش عضلانی حنجره‌ای و تولیدی را تجربه می‌کنند که به نظر می‌رسد که با استفاده از درمان دستی بهبود می‌یابند. به نظر می‌رسد تغییرات فضای واکه ای به دنبال درمان، ناشی از ارتباطات بیومکانیکی بین فک پایین، زبان، حنجره و عضلات حلقی باشد. تغییرات در فرمنت‌ها می‌تواند به ریشه‌ی زبان، ارتفاع حنجره، پوزیشن قدامی-خلفی هایوید، عضلات خلفی تحتانی یا ترکیبی از این‌ها نسبت داده شود. قبل از درمان سفتی حنجره می‌تواند در کوتاه شدن عضلات پری‌لارینژیال و کاهش انعطاف‌پذیری حرکات هایوید شرکت کند، که اینها می‌توانند باعث کاهش آزادی حرکات زبان و فک بشوند. اگرچه دیسفونی ناشی از تنش عضلانی اختلالی صوت در نظر گرفته می‌شود، درمان آن با درمان دستی اثرات مثبتی روی سیستم تولیدی و آواسازی دارد.

Reference:

1. Hoffman H, Karnell M. Common Voice Disorders: A Primary Care Approach. NCVS Status and Progress Report. 1994;7:187-96.
2. Morrison MD, Rammage LA, Belisle GM, Pullan CB, Nichol H. Muscular tension dysphonia. J. of otolaryngology. 1983;12(5):302-6.
3. Roy N, Nissen SL, Dromey C, Sapir S. Articulatory changes in muscle tension dysphonia: Evidence of vowel space expansion following manual circumlaryngeal therapy. Journal of communication disorders. 2009;42(2):124-35.

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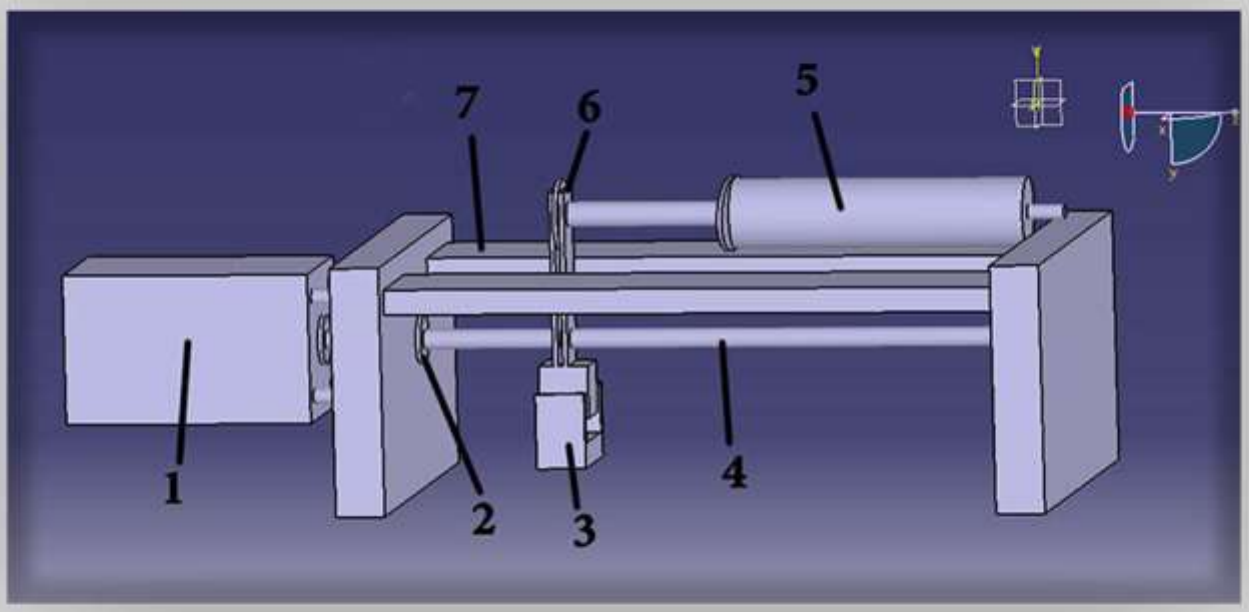

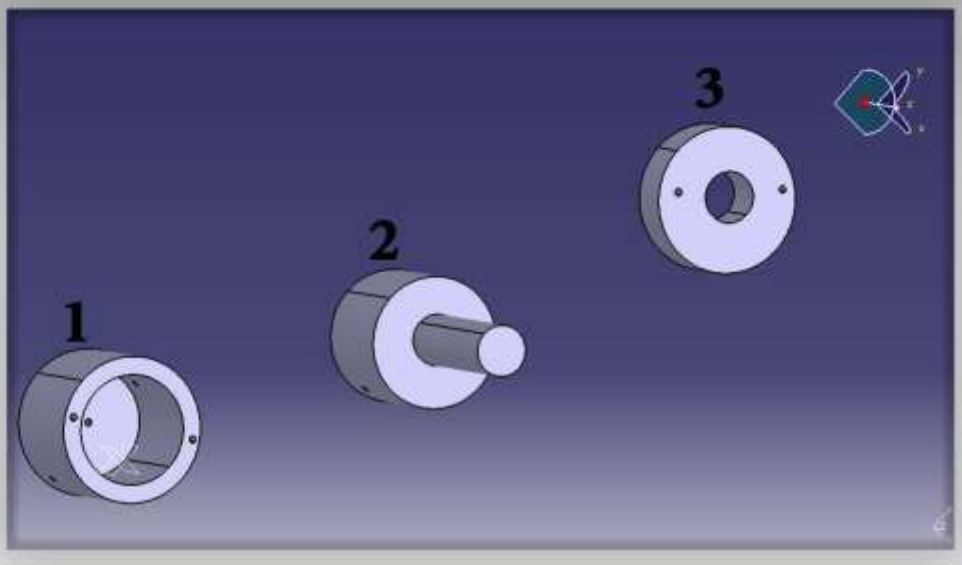

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Technical Drawing

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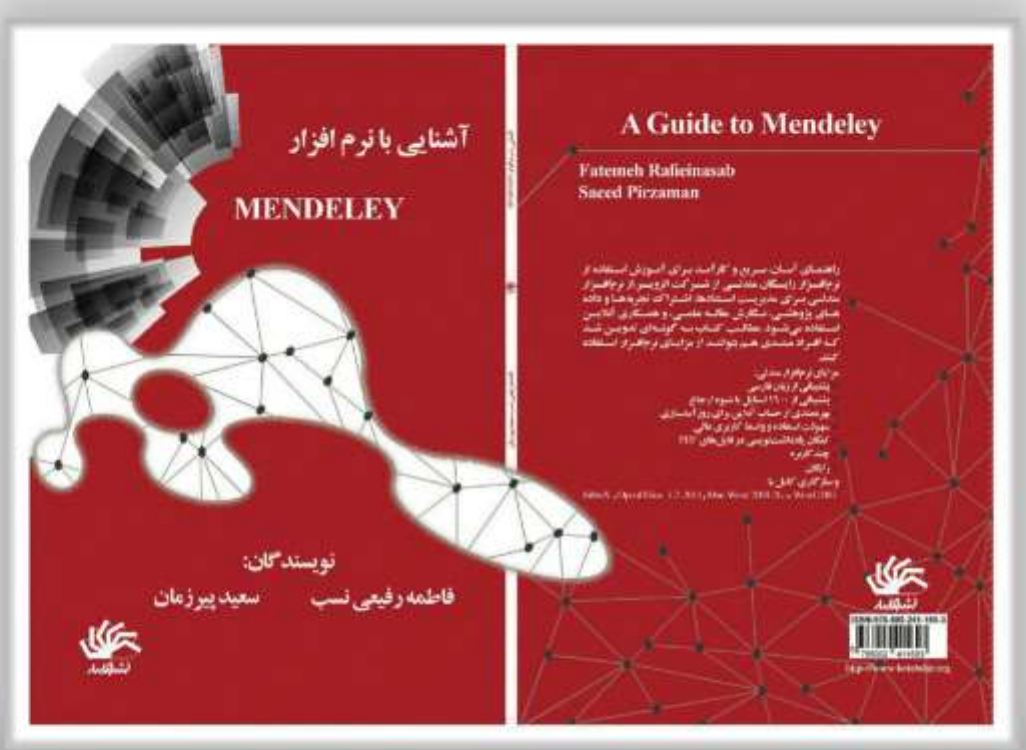

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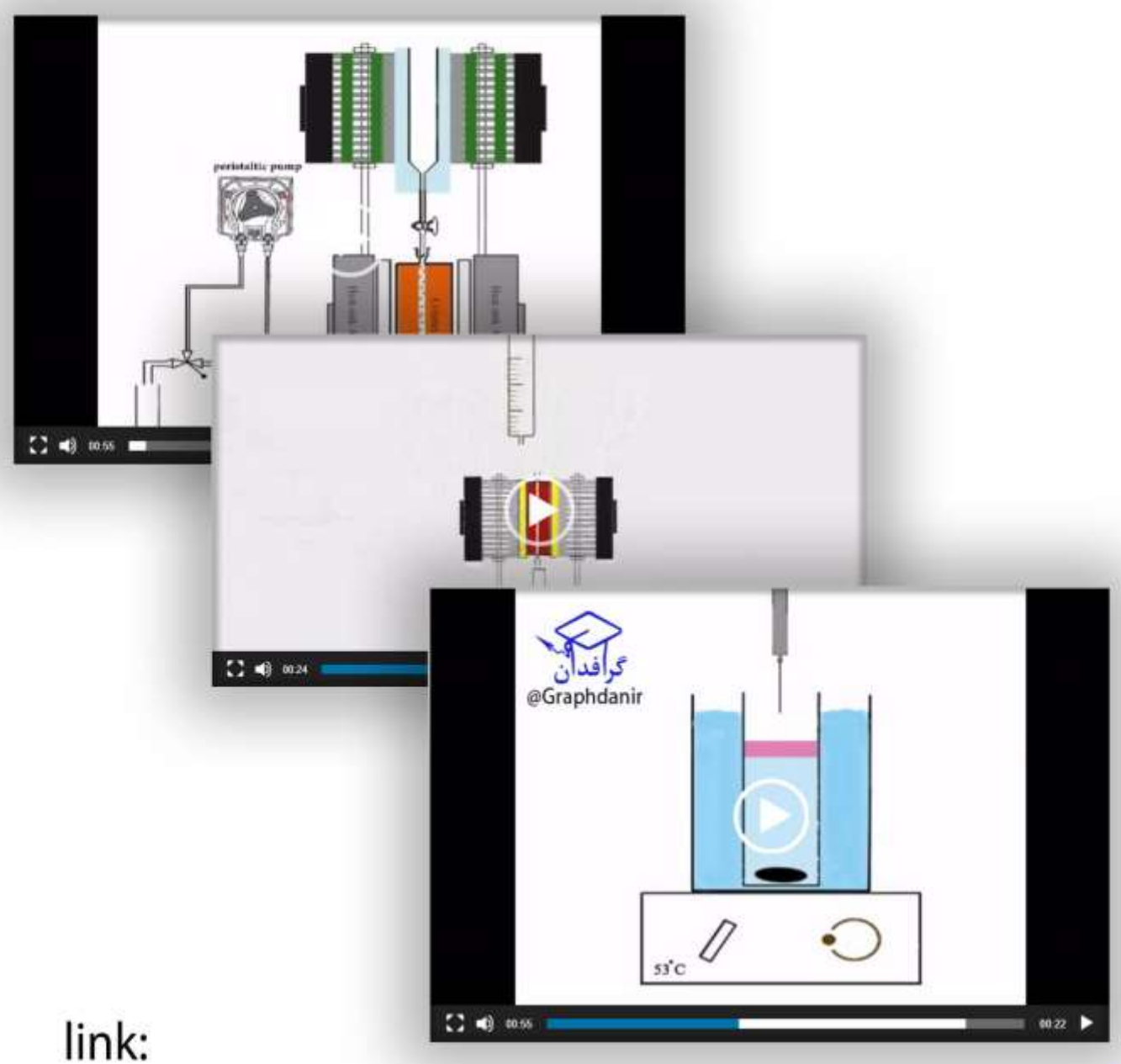

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