

## Assoc. Prof. MELEK ŞİRİN ÇELİK

### Personal Information

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### Education Information

Doctorate, Clarkson University, Department Of Chemistry And Biomolecular Science, United States Of America 2001 - 2006

Postgraduate, Marmara University, Faculty of Arts and Sciences, Chemistry, Turkey 1998 - 2001

Undergraduate, Marmara University, Faculty of Arts and Sciences, Chemistry, Turkey 1994 - 1998

### Dissertations

Doctorate, Electrochemical and Chemical Reactions of Some Aromatic Carboxaldehydes, Clarkson University, Department Of Chemistry And Biomolecular Science, 2006

Postgraduate, Çinkonun kaplama banyosundan elektrokristalizasyonu, Marmara Üniversitesi, Faculty of Arts and Sciences, Chemistry, 2001

### Research Areas

Analytical Chemistry, Physical Chemistry

### Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Arts and Sciences, Chemistry, 2018 - Continues

Research Assistant, Marmara University, Faculty of Arts and Sciences, Chemistry, 1998 - 2016

### Academic and Administrative Experience

Marmara University, Faculty of Arts and Sciences, Chemistry, 2015 - Continues

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Electrochemical Approach on Mechanism of an Oral Progestin in Aqueous Media and its Fully Validated Detection via a Carbon-Metal Based Composite Sensor**  
Bakirhan N. K., Celik M. S. B., Celik H., USLU B., ÖZKAN S. A.  
ELECTROANALYSIS, vol.30, no.10, pp.2273-2283, 2018 (SCI-Expanded)
- II. **Polarographic Investigation of Dienogest**  
Baymak M. Ş., Celik H., Bakirhan N. K., USLU B., ÖZKAN S. A.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.165, no.10, 2018 (SCI-Expanded)

- III. **The Application of Differential Pulse Polarography to the Analysis of Capecitabine and Investigation of Its Electroreduction Mechanism**  
Baymak M. Ş., Celik H., ÖZKAN S. A.  
JOURNAL OF THE ELECTROCHEMICAL SOCIETY, vol.162, no.6, 2015 (SCI-Expanded)
- IV. **A rapid validated HPLC method for determination of sulforaphane and glucoraphanin in broccoli and red cabbage prepared by various cooking techniques**  
Celik H., Ariburnu E., Baymak M. Ş., YEŞİLADA E.  
ANALYTICAL METHODS, vol.6, no.13, pp.4559-4566, 2014 (SCI-Expanded)
- V. **Determination of pK(a) Values of Some Benzoxazoline Derivatives and the Structure-Activity Relationship**  
Celik H., Buyukaga M., ÇELEBİER M., TÜRKÖZ ACAR E., Baymak M. Ş., GÖKHAN KELEKÇİ N., PALASKA E., Erdogan H.  
JOURNAL OF CHEMICAL AND ENGINEERING DATA, vol.58, no.6, pp.1589-1596, 2013 (SCI-Expanded)
- VI. **Equilibria of formation and dehydration of the carbinolamine intermediate in the reaction of benzaldehyde with hydrazine**  
ÇELİK M. Ş., Zuman P.  
Tetrahedron, vol.63, pp.5450-5454, 2007 (SCI-Expanded)
- VII. **Solvent solute interactions of isomeric phthalaldehydes in aqueous solutions**  
ÇELİK M. Ş., Kulla E., Zuman P.  
Journal Of Molecular Liquids, vol.131132, pp.24-28, 2007 (SCI-Expanded)
- VIII. **Electroanalytical evidence for the formation of carbinolamines in the reactions of terephthalaldehyde with hydrazine**  
ÇELİK M. Ş., Zuman P.  
Tetrahedron Letters, vol.47, pp.7991-7993, 2006 (SCI-Expanded)
- IX. **Reduction of diprotonated form of aryl hydrazones**  
ÇELİK M. Ş., ÇELİK H., Lund H., Zuman P.  
Journal Of Electroanalytical Chemistry, vol.589, pp.7-14, 2006 (SCI-Expanded)
- X. **Strong Covalent Hydration of Terephthalaldehyde**  
ÇELİK M. Ş., Vercoe K. L., Zuman P.  
Journal Of Physical Chemistry B, vol.109, pp.21928-21929, 2005 (SCI-Expanded)
- XI. **Experimental evidence of formation of imines in the course of reduction of hydrazones**  
ÇELİK M. Ş., ÇELİK H., Lund H., Zuman P.  
Journal Of Electroanalytical Chemistry, vol.581, pp.284-293, 2005 (SCI-Expanded)
- XII. **Electroreduction and oxidation of terephthalaldehyde and the role of hydration**  
ÇELİK M. Ş., Bover W. J., ÇELİK H., Zuman P.  
Electrochimica Acta, vol.50, pp.1347-1359, 2005 (SCI-Expanded)
- XIII. **Diprotonated hydrazones and oximes as reactive intermediates in electrochemical reductions**  
ÇELİK M. Ş., ÇELİK H., Ludvik J., Lund H., Zuman P.  
Tetrahedron Letters, vol.45, pp.5113-5115, 2004 (SCI-Expanded)
- XIV. **Difference in the electrochemical behavior of three isomeric phthalaldehydes**  
Bover W J., ÇELİK M. Ş., Camaione L., Zuman P.  
Electrochemistry Communications, vol.5, pp.334-336, 2003 (SCI-Expanded)
- XV. **Electroreduction of isophthalaldehyde An example of simultaneous reduction of two identical electroactive centers**  
Bover W. J., David J., ÇELİK M. Ş., Zuman P.  
Indian Journal Of Chemistry Section A-Inorganic Bio-Inorganic Physical Theoretical Chemistry, vol.42, pp.744-750, 2003 (SCI-Expanded)

## Papers Published in Refereed Scientific Meetings

- I. **Organik Moleküllerin İndirgenme Mekanizmalarının Aydınlatılmasında Polarografik Yaklaşım**

ÇELİK M. Ş., ÇELİK H.

30.Ulusal Kimya Kongresi,, Gazi Mağusa-KKTC., Turkey, 5 - 08 November 2018

- II. **Bazı Nonsteroidal Antiinflamatuvar 2-(3H)-Benzoksazolon Türevlerinin Asitlik Sabitlerinin (pKa) Spektrofotometrik Yöntem ile Belirlenmesi**  
ALTUNTERİM S., ÇELİK M. Ş., ÇELİK H., mulazım y., KEŞANLI B.  
30.Ulusal Kimya Kongresi,, Gazi Mağusa-KKTC., Turkey, 5 - 08 November 2018
- III. **SYNTHESIS, ANTIMICROBIAL ACTIVITY and ELECTROCHEMICAL BEHAVIOUR of ALKYL 4-(4-(3-METHOXYCARBONYL)-2,6,6-TRIMETHYL-5-OXO-1,4,5,6,7,8-HEXAHYDROQUINOLINE-4-YL)PHENYL)-6,6-DIMETHYL-5-OXO-1,4,5,6,7,8-HEXAHYDROQUINOLINE-2-CARBOXYLATE**  
ÇELİK H., Eroğlu A., ÇELİK M. Ş., ÇETİN G., ŞİMŞEK R., ŞAFAK O. C.  
12th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 26 - 29 June 2018
- IV. **Reduction Mechanism and Electrochemical Determination of Risperidone**  
ÇELİK M. Ş., ÇELİK H.  
12th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 26 - 29 June 2018
- V. **Electrochemical behavior of an oral progestin dienogest and its sensitive analysis from pharmaceutical dosage form**  
KARADAŞ BAKIRHAN N., ÇELİK H., ÇELİK M. Ş., USLU B., ÖZKAN S. A.  
EAST WEST CHEMISTRY CONFERENCE, 12 - 14 October 2017
- VI. **Electrochemical Behavior of Dienogest in Aqueous Solutions**  
ÇELİK M. Ş., ÇELİK H., Isık S., KARADAŞ BAKIRHAN N., USLU B., ÖZKAN S. A.  
50th Heyrovsky Discussion, 18 - 22 June 2017
- VII. **Electrochemical Behaviour of Some New Mannich Bases of 5-Methyl and 5-Nitro-2-benzoxazolinone Derivatives**  
ÇELİK H., Arıcı B., ÇELİK M. Ş., KÖKSAL AKKOÇ M.  
50th Heyrovsky Discussion, 18 - 22 June 2017
- VIII. **Application of Polarographic Methods for the Determination of Electrochemical Behavior of Organic Pharmaceutical Drugs**  
ÇELİK H., ÇELİK M. Ş.  
Petr Zuman 60th Birthday Symposium, Potsdam, New York, United States Of America, 29 - 30 June 2016
- IX. **Polarography in the Investigation of Organic Reaction Mechanisms and Electroanalytical Applications**  
ÇELİK M. Ş., ÇELİK H.  
Petr Zuman 60th Birthday Symposium, Potsdam, New York, United States Of America, 29 - 30 June 2016
- X. **Electrochemical Behavior of 1,4-dihydro pyridine Derivatives**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
11th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 9 - 12 June 2015
- XI. **Determination of Acid Dissociation Constant Values of some new Mannich Bases of 5 Methyl and 5 Nitro 2 Benzoxazolinone**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
11th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 9 - 12 June 2015
- XII. **Kloral in İndirgenme Mekanizması ve Sulu Ortamdaki Denge Reaksiyonunun Polarografik Yöntem ile İncelenmesi**  
ÇELİK M. Ş., ÇELİK H.  
7. Ulusal Analitik Kimya Kongresi, Kahramanmaraş, Turkey, 1 - 05 September 2014
- XIII. **Electrochemical Behavior of Risperidone in Aqueous Buffered Solutions**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
10th International Electrochemistry Meeting, Konya, Turkey, 4 - 08 September 2013
- XIV. **Electrochemical Behavior of 2,3-H Benzoxazolinone and Its Derivatives**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
10th International Electrochemistry Meeting, Konya, Turkey, 4 - 08 September 2013
- XV. **Travoprost'un Valide Edilmiş HPLC DAD Yöntemi ile Ticari Preparatlarda Tayini ve Stabilite Takibi**

ÇELİK H., TÜRKÖZ ACAR E., ÇELİK M. Ş., BERK B.

Kromatografi 2013 Kongresi, Bursa, Turkey, 19 - 22 June 2013

- XVI. **İzomerik Fitalaldehitlerin İndirgenmelerinde Kovalent Bağlı Suyun Etkisi**  
ÇELİK M. Ş., ÇELİK H.  
VI. Ulusal Analitik Kimya Kongresi, Hatay, Turkey, 3 - 07 September 2012
- XVII. **Oksim ve Hidrazonların Elektrokimyasal İndirgenmeleri Hakkında Bilmediklerimiz**  
ÇELİK M. Ş., ÇELİK H.  
III. Fiziksel Kimya Günleri, Balıkesir, Turkey, 12 - 15 July 2012
- XVIII. **The Influence of Preparation Techniques in Some Cruciferous Vegetables for Quantitative Determination of Sulforaphane and Glucoraphanin by Using Validated HPLC DAD Method**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
10th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 26 - 29 June 2012
- XIX. **Electrochemical Behavior and Validated Determination of Capecitabine in Aqueous Media**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
10th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 26 - 29 June 2012
- XX. **Polarographic Investigation of Nucleophilic Addition to Carbonyl Compounds**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
9th International Electrochemistry Meeting, İzmir, Turkey, 25 - 29 September 2011
- XXI. **Polarographic Behavior of Some Benzoxazolinone Derivatives**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
9th International Electrochemistry Meeting, İzmir, Turkey, 25 - 29 September 2011
- XXII. **Spectrophotometric Potentiometric and Capillary Electrophoretic Acid Dissociation Constant Values of Some Benzoxazolinone Derivatives in Buffered Solutions**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
4th IMMPC - 6th ISPC Joint Meeting, Ankara, Turkey, 30 September - 02 October 2010
- XXIII. **Electrochemical Reduction and Alkaline Cleavage of Chloral**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
9th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 23 - 26 June 2009
- XXIV. **Determination of Acid Dissociation Constant values of Some Benzoxazolinone Derivatives**  
ÇELİK M. Ş., ÇELİK H., Secki E., Saritemur B., Ayan G., Eken A. D., KÖKSAL AKKOÇ M., ERDOĞAN H.  
9th International Symposium on Pharmaceutical Sciences, Ankara, Turkey, 23 - 26 June 2009
- XXV. **Kloral in Sulu Cozeltilerdeki Davranisinin Elektrokimyasal Yöntemlerle İncelenmesi**  
ÇELİK M. Ş., ÇELİK H.  
XXII. National Chemistry Congress, Gazimagusa, Cyprus (Kktc), 6 - 10 October 2008
- XXVI. **Experimentální Dukaz Vzniku karbinolaminu při reakci benzaldehydu s hydrazinnem rovnováhy a kinetika**  
Zuman P., ÇELİK M. Ş.  
Secka 1- Analytická a fyzikální chemie, Prague, Czech Republic, 1 - 03 September 2006
- XXVII. **Role of protonation in the reduction of hydrazones and oximes**  
Zuman P., ÇELİK M. Ş., ÇELİK H., Ludvik J., Lund H.  
International Society of Electrochemistry 57th Annual Meeting, Edinburgh, Ireland, 27 August - 01 September 2006
- XXVIII. **Electrochemical Investigation of the Formation of Carbinolamine as Intermediate in the Reaction of Hydrazine with various Carbonyl Compounds**  
ÇELİK M. Ş., Zuman P.  
The Electrochemical Society 209th Meeting, Colorado, United States Of America, 7 - 11 May 2006
- XXIX. **Contribution to Solution Chemistry of Orthophthalaldehyde and 2,3 Naphthalenedicarboxaldehyde**  
ÇELİK M. Ş., Zuman P.  
The Electrochemical Society 209th Meeting, Colorado, United States Of America, 7 - 11 May 2006
- XXX. **Contribution to Reduction of Hydrazones and Oximes**  
Zuman P., ÇELİK M. Ş., ÇELİK H., Ludvik J., Lund H.  
American Chemical Society Pacificchem 2005, Hawaii, United States Of America, 15 - 20 December 2005

- XXXI. **Solvent Solute Interactions of Isomeric Phthalaldehydes in Aqueous Solutions**  
Zuman P., ÇELİK M. Ş., Kulla E., Vercoe K. L.  
29th International Conference on Solution Chemistry (ICSC), Portoroz, Slovenia, 21 - 25 August 2005
- XXXII. **Electroreduction and Hydration of Three isomeric Phthalaldehydes**  
ÇELİK M. Ş., Eliona K., Vercoe K. L., Zuman P.  
American Chemical Society The 33rd Northeast Regional Meeting (NERM2005), Connecticut, United States Of America, 14 - 17 July 2005
- XXXIII. **Electroreduction Electrooxidation Hydration and ring formation of OPA**  
ÇELİK M. Ş., Eliona K., Vercoe K. L., Zuman P.  
The Electrochemical Society 207th Meeting, Quebec, Canada, 15 - 20 May 2005
- XXXIV. **Diprotonation of hydrazones and oximes at electrode surface and an experimental proof of formation of an imine intermediate**  
Zuman P., ÇELİK M. Ş., ÇELİK H., Lund H.  
2004 Joint International Meeting, 206th Meeting of The Electrochemical Society, Hawaii, United States Of America, 3 - 08 October 2004
- XXXV. **Role of covalent hydration in the reduction of isomeric phthalaldehydes**  
Zuman P., ÇELİK M. Ş., ÇELİK H.  
International Society of Electrochemistry 55th Annual Meeting, Thessaloniki, Greece, 19 - 24 September 2004
- XXXVI. **Diprotonation preceding first electron transfer in the reduction of some hydrazones and oximes**  
Zuman P., ÇELİK M. Ş., ÇELİK H., Ludvik J., Lund H.  
International Society of Electrochemistry 55th Annual Meeting, Thessaloniki, Greece, 19 - 24 September 2004
- XXXVII. **Electrochemistry of Terephthalaldehyde**  
Zuman P., Bover W. J., ÇELİK M. Ş., ÇELİK H.  
The Electrochemical Society 205th Meeting, New-Jersey, United States Of America, 9 - 13 May 2004, vol.10, pp.49
- XXXVIII. **Experimental proof of formation of imines as intermediates in the reduction of hydrazones**  
ÇELİK M. Ş., Lund H., Zuman P.  
The Electrochemical Society 205th Meeting, New-Jersey, United States Of America, 9 - 13 May 2004, vol.10, pp.169
- XXXIX. **Contribution to Electroreduction of hydrazones**  
ÇELİK M. Ş., ÇELİK H., Zuman P.  
The Electrochemical Society 203rd Meeting, New-Jersey, United States Of America, 27 April - 02 May 2003, vol.12, pp.93
- XL. **Polarographic study of the kinetics and equilibria of the reduction benzaldehydes with hydrazine**  
Zuman P., ÇELİK M. Ş.  
The Electrochemical Society 201st Meeting, New-Jersey, United States Of America, 12 - 17 May 2002, vol.10, pp.60

## Metrics

Publication: 55

Citation (WoS): 206

Citation (Scopus): 214

H-Index (WoS): 10

H-Index (Scopus): 10

## Non Academic Experience

Marmara Üniversitesi, Araştırma Görevlisi Doktor

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