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S$_3$-PP19	**Synthesis of (2,2,2-trifluoroethylidene) aniline derivative** Davood Aghaei Afshar[a],Ali Darehkordi[b] and Vahideh Hashemi *[a]Department of Chemistry, Shahid Dadbin Institute of Kerman, Kerman 171, Vocational and Technical University, Iran* *[b]Department of Chemistry, Faculty of Science, Vali-e-Asr University of Rafsanjan, Rafsanjan 77176, Iran*
S$_3$-PP20	**Electrochemical characterization of hydroxylated xanthones by cyclic voltammetry** C.M.M. Santos,[a] M.B.Q. Garcia,[b] A.M.S. Silva,[c] J.A.S. Cavaleiro,[c] E. Fernandes[b] *[a] Departamento de Produção e Tecnologia Vegetal, Escola Superior Agrária de Bragança, 5301-855 Bragança, Portugal (clems@ipb.pt)* *[b] REQUIMTE, Departamento de Ciências Químicas, Faculdade de Farmácia, Universidade do Porto, Rua Aníbal Cunha, 164, 4099-030 Porto, Portugal* [c] QOPNA, Departamento de Química, Universidade de Aveiro, 3810-193 Aveiro, Portugal
S$_3$-PP21	**Characterization of Vinylgold Intermediates Involved in the Au(III)/Au(I)-Mediated Cyclization of (*N*-Propargyl)benzamides:** Hyewon Seo, Olga A. Egorova, and Kyo Han Ahn *Department of Chemistry and Center for Electro-Photo Behaviors in Advanced Molecular Systems, POSTECH, San 31, Hyoja-dong, Pohang, Kyeongbuk 790-784, Korea.*
S$_3$-PP22	**On the Reaction Pathways Involved in the Rhodamine-Based Fluorescence Sensing of Gold Ions** Hyewon Seo, Olga A. Egorova, and Kyo Han Ahn* *Department of Chemistry and Center for Electro-Photo Behaviors in Advanced Molecular Systems, POSTECH, San 31, Hyoja-dong, Pohang, Kyeongbuk 790-784, Korea.*
S$_3$-PP23	**An Efficient Method for the Synthesis of the Natural Product Xyloketal H** Abdulkadar Shaikh, George Varvounis* Department of Chemistry, University of Ioannina, Section of Organic Chemistry and Biochemistry, 45110 Ioannina, Greece
S$_3$-PP24	**A Novel Two-photon Fluorescent Probe for ATP and ADP** Alla Sreenivasa Rao, Dokyoung Kim, and Kyo Han Ahn* Department of Chemistry and the Center for Electro-Photo Behaviors in Advanced Molecular Systems, POSTECH, San 31, Hyoja-dong, Pohang, 790-784, Republic of Korea
S$_3$-PP25	**Novel isoxazole derivatives: Synthesis and biological properties evaluation** E. Tzanetou[a], D. Stagos[b], K. Kasiotis[c], Sandra Liekens[d], E. Koutsotheodorou[b], A. Batzilioti[b], D. Kouretas[b] and S. Haroutounian[a] *[b]Chemistry Laboratory, Agricultural University of Athens, Iera Odos 75, Athens, Greece* *[b]Department of Biochemistry and Biotechnology, University of Thessaly, Ploutonos 26 & Aiolou, Larissa , Greece* *[c]Benaki Phytopathological Institute, Laboratory of Pesticides Toxicology, 8 St. Delta Street, Athens, Greece* *[d]Rega Institute for Medical Research, Minderbroedersstraat 10, Leuven, Belgium*
S$_3$-PP26	**Novel oxidations of hydrazones with iodobenzene diacatate (IBD)** Alexandra Tzinavou, George Varvounis* Department of Chemistry, University of Ioannina, Section of Organic Chemistry and Biochemistry, 45110 Ioannina, Greece.
S$_3$-PP27	**Zinc-DPA-Functionalized Polydiacetylene Liposome Microarrays: Selective and Sensitive Detection of Phosphate Ions** Kyung Mi Kim, Yong-Suk Cho and Kyo Han Ahn* *Department of Chemistry and Center for Electro-Photo Behaviors in Advanced Molecular Systems, POSTECH, Pohang, Republic of Korea, 790-784*
S$_3$-PP28	**Nanoparticle-based Indicator-Displacement Assay for Pyrophosphate** Yong-Suk Cho and Kyo Han Ahn* *Department of Chemistry and Center for Electro-Photo Behaviors in Advanced Molecular Systems, POSTECH, Pohang, Republic of Korea, 790-784*
S$_3$-PP29	**Synthesis of Porphyrin-Based Covalent Organic Frameworks** Rashid Altamimi* King Abdulaziz City for Science and Technology, Riyadh, 11442, Saudi Arabia

Electrochemical characterization of hydroxylated xanthones by cyclic voltammetry

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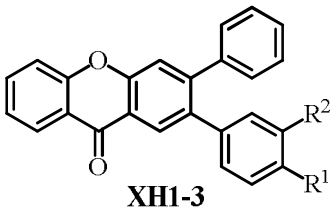
Xanthones constitute a class of oxygenated heterocyclic compounds commonly identified in some higher plant families, fungi and lichens [1]. Their large variety of biological and pharmacological activities encouraged the scientific community for the search and isolation of natural derivatives for therapeutic applications [2]. Consequently, extensive studies have been devoted to the development of synthetic routes for the preparation of these naturally-occurring compounds or other synthetic bioactive derivatives [3,4].

For the present study, xanthones XH**1-9** were obtained by synthesis and the diversity of substitution pattern includes the presence of phenolic and catecholic moieties. These structural features are important requisites for the scavenging activity against reactive oxygen and nitrogen species already demonstrated by these molecules [5].

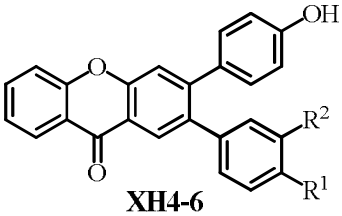
During the last decades, electrochemical studies have been widely used for the evaluation of structure-antioxidant activity relationship of several phenolic compounds [6,7]. Thus, the electrochemical profile of xanthones **XH1-9** can provide useful information about their electrochemical reactions, which may be used to predict or explain their biological properties.

In this communication we will report the electrochemical characterization by cyclic voltammetry of various hydroxylated xanthones, in physiological conditions. The oxidation potential value *versus* structure relationship will be highlighted and some considerations about the oxidation mechanism will be presented.



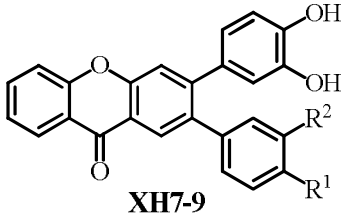
XH1-3

a) $R^1 = R^2 = H$
b) $R^1 = OH$, $R^2 = H$
c) $R^1 = R^2 = OH$



XH4-6

a) $R^1 = R^2 = H$
b) $R^1 = OH$, $R^2 = H$
c) $R^1 = R^2 = OH$



XH7-9

a) $R^1 = R^2 = H$
b) $R^1 = OH$, $R^2 = H$
c) $R^1 = R^2 = OH$

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