

## Přehled publikací k datu 30. 4. 2022

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### I. vědecké monografie

### II. kapitoly v monografiích

### III. původní práce a práce v recenzovaných sbornících

#### III. A - Časopisy s IF

1. **Mikšánová M.\***, Hudeček J., Páca J., Stiborová M.: To the mechanism of peroxidase-mediated degradation of a recalcitrant dye Remazol Brilliant Blue R, *Collect. Czech. Chem. Commun.* **2001**, 66, 663-675. IF<sub>2001</sub> = **0,778**. (9 citací).
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### III. B - Časopisy bez IF

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### III. C – Recenzované sborníky

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45. Stráňava M., **Martínková M.\***, Stiborová M., Man P., Kitanishi K., Muchová L., Vitek L., Martínek V., Shimizu T.: The site directed mutagenesis of key aminoacids in the heme distal side of an oxygen sensor, YddV, probably converts its character from a O<sub>2</sub> sensing protein to a heme oxygenase enzyme. (2014) 14th Workshop of Physical Chemists and Electrochemists, Brno, Czech Republic, page 148 -150 - ISBN 978-80-210-6842-1

#### IV. učebnice a učební texty

#### V. různé závažné práce

#### VI. přednášky typu "invited speaker"

46. **Miksanova M.**, Igarashi J., Kurokawa H., Shimizu T.: Activation mechanism of the signal switching of heme-sensor protein, HRI, (2005) The 78th Annual Meeting of the Japanese Biochemical Society, Kobe, Japan, 19. -22. October 2005.
47. **Miksanova M.**, Kurokawa H., Igarashi J., Yamauchi S., Shimizu T.: Role of the N-terminal domain in the structure and catalysis of heme-regulated eukaryotic initiation factor 2 $\alpha$  kinase, a heme-sensor enzyme, (2006) Biochemistry and Molecular Biology of Sensor Enzymes and Proteins, Sendai, Japan, 15. – 16. June 2006.
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49. **Martinkova M.**, Stranava M., Fojtikova V., Man P., Martinek V., Shimizu T.: Molecular mechanisms of signal transduction in heme-containing oxygen sensor proteins (2016) 229th meeting of The Electrochemical Society, San Diego, USA - May 29 – June 3, 2016.
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51. **Martinkova M.**, Stranava M., Fojtikova V., Man P., Martinek V., Shimizu T.: The structure and function relationships of heme-containing sensor proteins (2016) XXVth Biochemistry meeting, Prague, The Czech Republic - September 13 - 16, 2016.
52. **Martinkova M.**: Involvement of heme and heme sensor proteins in carcinogenesis (2018) 43rd FEBS Congress, Prague, The Czech Republic - July 7–12, 2018.

#### VII.přehledy a souborné referáty

53. Stiborová M., **Mikšánová M.**, Martínek V., Frei E.: Heme peroxidases: structure, function, mechanism and involvement in activation of carcinogens. A review, *Collect. Czech. Chem. Commun.* **2000**, 65, 297-325. **IF<sub>2000</sub> = 0.960. (20 citací).**

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56. Shimizu T., Huang D., Yan F., Stranova M., Bartosova M., Fojtíková V., **Martínková M.\***: Gaseous O<sub>2</sub>, NO, and CO in Signal Transduction: Structure and Function Relationships of Heme-Based Gas Sensors and Heme-Redox Sensors, *Chem. Rev.* **2015**, 115, 6491–6533. **IF<sub>2015</sub> = 37.369. (98 citací)**
57. Shimizu T., Lengalova A., Martínek V., **Martínková M.\***: Heme: Emergent roles of heme in signal transduction, functional regulation and as catalytic centres, *Chem. Soc. Rev.* **2019**, 48, 5624 - 5657. **IF<sub>2019</sub> = 42.846. (49 citací)**
58. **Martínková M.\***: Nová role hemu ve zdraví a nemoci - hemové senzorové proteiny, *Chem. Listy* **2022**, 116, 163–171 (in Czech). **IF<sub>2020</sub> = 0.381. (0 citací)**

## VIII. patenty národní a zahraniční, objevy

### IX. disertační, habilitační, rigorózní práce

59. **Mikšanová M.**: Studie molekulárního mechanismu karcinogenity *o*-nitroanisolu a *o*-anisidinu, disertační práce, PřF UK **2003**
60. **Martínková M.**: Studie mechanismu působení vybraných hemoproteinů a jejich participace na procesu karcinogeneze, habilitační práce, PřF UK **2012**

### X. abstrakta z mezinárodních sjezdů a sympozií uveřejněné v časopisech

61. Stiborová M., **Mikšanová M.**, Schmeiser H. H., Wiessler M., Frei E.: Towards the explanation of the carcinogenicity of 2-nitroanisol and 2-anisidine, carcinogens with unknown mechanism, *J. Cancer Res. Clin. Oncol.* **2001**, 127, 31.
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68. Rýdlová H., **Mikšanová M.**, Stiborová M.: Identification of genotoxicity of o-anisidine and o-nitroanisole and their carcinogenic potential for humans. *Chem. Listy* **2005**, 99, 381.
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70. Svobodova M., **Martinkova M.**, Dracinska H., Stiborova M.: Oxidation of 2-nitrophenol, a metabolite of carcinogenic 2-nitroanisole, by cytochromes P450-similarity between human and rat enzymes. *The FEBS Journal* **2009**, 276, 184-185.
71. **Martínková M.**, Martínek V., Stiborová M.: Inhibitors of cytochrome P450 and their effect on peroxidase activity. *Interdiscip. Toxicol.* **2011**, 4, A48.
72. **Martínková M.**, Kubíčková B., Martínek V., Stiborová M.: Effect of important cytochrome p450 inhibitors on peroxidase activity *Interdiscip. Toxicol.* **2012**, 5, 54-55.
73. **Martinková M.**, Stiborová M., Kitanishi K., Igarashi J. and Shimizu T.: Novel heme-containing sensor proteins and their mechanism of action *Interdiscip. Toxicol.* **2012**, 5, 55.
74. Pavlou A., **Martinkova M.**, Shimizu T., Pinakoulaki E.: Probing the structural properties and dynamics of the heme-based sensor protein YddV by time-resolved step-scan FTIR spectroscopy *J. Biol. Inorg. Chem.* **2014**, 19, S845-S845.

## **XI. účast na řešení grantů**

75. Úloha cytochromů P450 a peroxidasy v metabolismu cizorodých látek v rostlinách - 203/99/1628 – GAČR, 1999 - 2002 (účast na řešení grantu uděleného prof. Dr. Ing. Martině Mackové, VŠCHT Praha).
76. Mikrobiální degradace fenolických látek ve vodě a vodních sedimentech - 104/03/0407 – GAČR, 2003 - 2006 (účast na řešení grantu uděleného prof. Ing. Janu Pácovi, Dr.Sc., VŠCHT Praha).
77. Studium karcinogenního potenciálu *o*-nitroanisolu a *o*-anisidinu pro lidský organismus - 203/03/0283 – GAČR, 2003 – 2006 (účast na řešení grantu uděleného prof. RNDr. Marii Stiborové, Dr.Sc.).
78. Mechanismus modulace oxidace léčiv a karcinogenů cytochromy P450 1A1/2 působením cytochromu b5; experimentální i teoretické přístupy - 203/09/0812 - GAČR, 2009 - 2011 (účast na řešení grantu uděleného RNDr. Václavu Martínkovi, PhD.).
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80. Moderní technologie pro identifikaci a optimalizaci nádorových léčiv nové generace - 204025/2012 – UNCE, 2012 - 2017 (účast na řešení grantu uděleného katedře biochemie, PřF UK)
81. Comparison of the adsorption capacity and trapping effectiveness of diosmectite and charcoal on the compounds causing the 10 most frequent intoxications in acute medicine IPSEN Pharma, os. (external sponsored study) 2014-2015 (hlavní řešitelka)
82. Studium intraproteinového/mezidoménového přenosu signálu u senzorových proteinů obsahujících hem, jmenovitě histidin kinasy (AfGcHK) a diguanylátcyklasy (YddV) - 756214 - GAUK, 2014 – 2015 (řešitel Martin Stráňava; vedoucí projektu)
83. Molecular mechanisms of intraprotein/interdomain signal transduction in model heme sensor proteins - 15-19883S - GAČR, 2015 - 2017 (hlavní řešitelka)
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85. Struktura a funkce modelových zástupců hemových senzorových proteinů a jejich participace na procesech ovlivňujících lidské zdraví – 704217 - GAUK, 2017 – 2019 (řešitelka Alžběta Farná roz. Lengálová; vedoucí projektu)

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87. Prevention of antibiotic resistance by TARGETed Treatment of pneumonia in children (TARGET) - 2019-087 – JPIAMR, 2020-2022 (mezinárodní konsorcium, hlavní řešitelka)

## **XII. ostatní publikace**

88. Stiborová M., **Mikšanová M.**: Molekulární mechanismus kancerogenese, *Živa* **1999**, 4 (*XLVII*), 146-148.
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