

## Списък с публикации и цитати

(в съответствие с минималните национални и допълнителните изисквания на ИОНХ по професионално направление 4.2 Химически науки)

**на гл. ас. д-р. Никола Людмилов Дренчев**

Група от показатели	Показател:	Необходими точки
	1. Дисертационен труд за присъждане на образователна и научна степен "доктор"	50 точки
А	<p style="text-align: center;">Тема на дисертационния труд:                      "Синтез и водород-сорбционни свойства на сплави на основата на Mg<sub>2</sub>Ni"</p> <p style="text-align: center;">ВАК, Диплома номер: 32834 Дата: 05.01.2009                      Специалност 01.05.18 „Химия на твърдото тяло"</p>	50 т.
	Общ брой	50 т.

Група от показатели	Показател:	Необходими точки
	4. Хабилизационен труд - научни публикации в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и/или Scopus)	Необходими 100 точки
В	1. <b><u>N. Drenchev</u></b> , E. Ivanova, M. Mihaylov, K. Hadjiivanov, "CO as an IR probe molecule for characterization of copper ions in a basolite C300 MOF sample", Phys. Chem. Chem. Phys., 12 (2010), pp. 6423-6427. ISSN: 1463-9076 (Print), ISSN: 1463-9084 (Online)	Q1 (SJR) 25 т.
	2. <b><u>N. Drenchev</u></b> , P. A. Georgiev, K. Hadjiivanov, "FTIR study of <sup>12</sup> C <sup>16</sup> O and <sup>13</sup> C <sup>18</sup> O coadsorption on Cu-ZSM-5", J. Mol. Catal. A, 341 (1-2), (2011), pp. 7-13 ISSN: 1381-1169	Q2 (JCR) Web of Science 20 т.
	3. <b><u>N. Drenchev</u></b> , I. Spassova, E. Ivanova, M. Khristova, K. Hadjiivanov, "Cooperative effect of Ce and Mn in MnCe/Al <sub>2</sub> O <sub>3</sub> environmental catalysts", Appl. Catal. B: Environmental, 138-139, (2013) pp. 362-372. ISSN: 0926-3373	Q1 (JCR) Web of Science 25 т.

B	<p>4. <b>N. Drenchev</b>, M. Mihaylov, P. Dietzel, Aa Albinati, P. Georgiev, K. Hadjiivanov,</p> <p>“Low-Temperature Adsorption of H<sub>2</sub> and D<sub>2</sub> on Dehydrated and Water Precovered CPO-27-Ni”,</p> <p>Journal of Physical Chemistry C, 120, (40), (2016) pp. 23083-23092</p> <p>ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR)</p> <p>25 т.</p>
	<p>5. <b>N. Drenchev</b>, M. Rosnes, P. Dietzel, A. Albinati, K. Hadjiivanov, P. Georgiev,</p> <p>“The Open Metal Sites in the Metal-Organic Framework CPO-27-Cu: Detection of Regular and Defect Copper Species by CO and NO Probe Molecules”</p> <p>J. Phys. Chem. C, 122, (30), (2018) pp. 17238-17249</p> <p>ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR)</p> <p>25 т.</p>
Общ брой		120 т.

Група от показатели	Показател:	Необходими точки
	<p>7. Научна публикация в издания, които са реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и/или Scopus), извън хабилизационния труд</p>	<p>220 точки</p>
Г	<p>1. M. Mihaylov, E. Ivanova, <b>N. Drenchev</b>, K. Hadjiivanov,</p> <p>“Coordination Chemistry of Fe<sup>2+</sup> Ions in Fe,H-ZSM-5 Zeolite as Revealed by the IR Spectra of Adsorbed CO and NO”,</p> <p>J. Phys. Chem., C 114, (2010), pp. 1004-1014.</p> <p>ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (JCR)</p> <p>Web of Science</p> <p>25 т.</p>
	<p>2. K. Chakarova, <b>N. Drenchev</b>, Konstantin Hadjiivanov,</p> <p>“FTIR Evidence of Different Bonding of Methane to OH Groups on H-ZSM-5, HY and SiO<sub>2</sub>”,</p> <p>J. Phys. Chem. C, 116 (2012), p. 17101.</p> <p>ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (JCR)</p> <p>Web of Science</p> <p>25 т</p>
	<p>3. K. Chakarova, <b>N. Drenchev</b>, M. Mihaylov, P. Nikolov, K. Hadjiivanov,</p> <p>“OH/OD isotopic shift factors of isolated and H-bonded surface silanol groups”,</p> <p>J. Phys. Chem. C, 117 (2013), p. 5242.</p> <p>ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR)</p> <p>25 т.</p>

Г	<p>4. R. Bulánek, <b>N. Drenchev</b>, P. Čičmanec, M. Setnička,  “CO and NO adsorption on VOx /SBA-15 catalysts: An FT-IR spectroscopic study”,  Adsorption, Volume 19, Issue 2-4, (2013), Pages 339-347.  ISSN: 0929-5607 (Print), ISSN: 1572-8757 (Online)</p>	<p>Q2 (SJR)  20 τ.</p>
	<p>5. D. Perra, <b>N. Drenchev</b>, K. Chakarova, M. Cutrufello, K. Hadjiivanov,  “Remarkable acid strength of ammonium ions in zeolites: FTIR study of low-temperature CO adsorption on NH<sub>4</sub>FER”,  RSC Advances, 4 (99), (2014) pp. 56183-56187  ISSN: 2046-2069</p>	<p>Q1 (SJR)  25 τ.</p>
	<p>6. J. Hidalgo-Carrillo, D. Švadlák, R. Bulánek, P. Čičmanec, M. Setnička, <b>N. Drenchev</b>, P. Eliášová,  „Comparative study of vanadium supported on MCM-36 and MCM-22 and their catalytic performance in C<sub>3</sub>-ODH”,  Ind. Eng. Chem. Res. 54 (7) (2015), pp. 2030-2039  ISSN: 0888-5885</p>	<p>Q1 (SJR)  25 τ.</p>
	<p>7. V. Zdravkova, <b>N. Drenchev</b>, E. Ivanova, M. Mihaylov, K. Hadjiivanov,  “Surprising Coordination Chemistry of Cu<sup>+</sup> Cations in Zeolites: FTIR Study of Adsorption and Coadsorption of CO, NO, N<sub>2</sub>, and H<sub>2</sub>O on Cu-ZSM-5”,  Journal of Physical Chemistry C, 119, (27), (2015), pp. 15292-15302  ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR)  25 τ.</p>
	<p>8. M. Mihaylov, S. Andonova, K. Chakarova, A. Vimont, E. Ivanova, <b>N. Drenchev</b>, K. Hadjiivanov,  “An advanced approach for measuring acidity of hydroxyls in confined space: FTIR study of low-temperature CO and <sup>15</sup>N<sub>2</sub> adsorption on MOF samples from the MIL-53(Al) series”,  Phys. Chem. Chem. Phys., 17 (37), (2015), pp. 24304-24314  ISSN: 1463-9076 (Print), ISSN: 1463-9084 (Online)</p>	<p>Q1 (SJR)  25 τ.</p>
	<p>9. M. Mihaylov, K. Chakarova, S. Andonova, <b>N. Drenchev</b>, E. Ivanova, E. A. Pidko, A. Sabetghadam, B. Seoane, J. Gascon, F. Kaptejn, K. Hadjiivanov  “Adsorption of CO<sub>2</sub> on MIL-53(Al): FTIR evidence of formation of dimeric CO<sub>2</sub> species”  Chemical Communications, 52 (7), (2016), pp. 1494-1497  ISSN 1359-7345 (Print), ISSN 1364-548X (Online)</p>	<p>Q1 (SJR)  25 τ.</p>

Г	<p>10. M. Mihaylov, K. Chakarova, S. Andonova, <b>N. Drenchev</b>, E. Ivanova, A. Sabetghadam, B. Seoane, J. Gascon, F. Kapteijn, Konstantin Hadjiivanov,</p> <p>“Adsorption Forms of CO<sub>2</sub> on MIL-53(Al) and NH<sub>2</sub>-MIL-53(Al) As Revealed by FTIR Spectroscopy”</p> <p>Journal of Physical Chemistry C, 120, (2016), pp. 23584–23595 ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR) 25 т.</p>
	<p>11. O. Lagunov, <b>N. Drenchev</b>, K. Chakarova, D. Panayotov, K. Hadjiivanov,</p> <p>“Isotopic Labelling in Vibrational Spectroscopy: A Technique to Decipher the Structure of Surface Species”</p> <p>Topics in Catalysis, 60, (19-20), (2017), pp. 1486-1495 ISSN: 1022-5528 (Print), ISSN: 1572-9028 (Online)</p>	<p>Q1 (SJR) 25 т.</p>
	<p>12. S. Andonova, A. Samast Ok, <b>N. Drenchev</b>, E. Ozensoy, K. Hadjiivanov,</p> <p>“Pt/CeO<sub>x</sub>/ZrO<sub>x</sub>/γ-Al<sub>2</sub>O<sub>3</sub> Ternary Mixed Oxide DeNO<sub>x</sub> Catalyst: Surface Chemistry and NO<sub>x</sub> Interactions”,</p> <p>Journal of Physical Chemistry C, 122 (24), (2018), pp. 12850-12863 ISSN: 1932-7455 (Online), ISSN: 1932-7447 (Print)</p>	<p>Q1 (SJR) 25 т.</p>
	<p>13. K. Chakarova, I. Strauss, M. Mihaylov, <b>N. Drenchev</b>, K. Hadjiivanov,</p> <p>“Evolution of acid and basic sites in UiO-66 and UiO-66-NH<sub>2</sub> metal-organic frameworks: FTIR study by probe molecules”,</p> <p>Microporous and Mesoporous Materials, 281, (2019), pp. 110-122 ISSN: 1387-1811</p>	<p>Q1 (SJR) 25 т. (2018)</p>
	<p>Общ брой</p>	<p>320 т.</p>

Група от показатели	Показател: 11. Цитирания в научни издания, монографии, колективни томове и патенти, реферирани и индексирани в световноизвестни бази данни с научна информация (Web of Science и Scopus)*	Необходими 60 точки
Д	<p><u>На работа:</u></p> <p><b>N. Drenchev</b>, E. Ivanova, M. Mihaylov, K. Hadjiivanov, "CO as an IR probe molecule for characterization of copper ions in a basolite C300 MOF sample", <i>Phys. Chem. Chem. Phys.</i>, 12 (2010), pp. 6423-6427</p> <p><u>Цитирания:</u></p> <p>(1) A. Dhakshinamoorthy, M. Alvaro, P. Concepcion and H. Garcia, <i>Catal. Commun.</i>, 12 (2011), p. 1018.</p> <p>(2) S. Marx, W. Kleist and A. Baiker, <i>J. Catal.</i>, 281 (2011), p. 76.</p> <p>(3) Szanyi, J., Daturi, M., Clet, G., Baer, D.R., Peden, C.H.F., <i>Curr. Phys. Chem.</i>, 2 (2012), p. 178.</p> <p>(4) P.St. Petkov, G.N. Vayssilov, J. Liu, O. Shekhah, Y. Wang, C. Wöll and T. Heine, <i>ChemPhys Chem</i>, 13 (2012), p. 2025.</p> <p>(5) M. Rubeš, L. Grajciar, O. Bludský, A.D. Wiersum, P.L. Llewellyn and P. Nachtigall, <i>ChemPhys Chem</i>, 13 (2012), p. 488.</p> <p>(6) J. Szanyi, M. Daturi, G. Clet, D.R. Baer and C.H.F. Peden, <i>Phys. Chem. Chem. Phys.</i>, 14. (2012), p. 4383</p> <p>(7) W. Qiu, Y. Wang, C. Li, Z. Zhan, X. Zi, G. Zhang, R. Wang and H. He, <i>Chin. J. Catal.</i>, 33 (2012), p. 986.</p> <p>(8) F. Bonino, C. Lamberti, S. Chavan, J.G. Vitillo and S. Bordiga, in <i>Metal Organic Frameworks. as Heterogeneous Catalysts</i> (F. Llabrés i Xamena, and J. Gascon, Eds.), RSC, Cambridge, (2013), p. 76.</p> <p>(9) J.B. Decoste, G.W. Peterson, B.J. Schindler, K.L. Killops, M.A. Browe and J.J. Mahle, <i>J. Mater. Chem.</i>, A1 (2013), p. 11922.</p> <p>(10) B. Jee, P.St. Petkov, G.N. Vayssilov, T. Heine, M. Hartmann and A. Pöpl, <i>J. Phys. Chem.</i>, C117 (2013), p. 8231.</p> <p>(11) T. Terencio, F. Di Renzo, D. Berthomieu and P. Trems, <i>J. Phys. Chem.</i>, C117 (2013), p. 26156.</p> <p>(12) Wang, C.-Y., Gray, J.L., Gong, Q., Zhao, Y., Li, J., Klontzas, E., Psfogiannakis, G., Froudakis, G., Lueking,</p>	<p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p>

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	(13) Hijikata, Y., Sakaki, S., Inorganic Chemistry, 53 (5), (2014), pp. 2417-2426	2 т.
	(14) Decoste, J.B., Peterson, G.W., Chemical Reviews, 114 (11) (2014), pp. 5695-5727	2 т.
	(15) Li, Y., Wang, X., Xu, D., Chung, J.D., Kaviani, M., Huang, B., J. Phys. Chem., C 119 (23), (2015), pp. 13021-13031	2 т.
	(16) Grajciar, L., Rubeš, M., Bludský, O., Nachtigall, P., Metal-Organic Frameworks: Materials Modeling Towards Potential Engineering Applications, (2015), pp. 175-206	2 т.
	(17) Wang, C.-Y., Ray, P., Gong, Q., Zhao, Y., Li, J.c, Lueking, A.D., Physical Chemistry Chemical Physics, Volume 17, Issue 40, 7 (2015), pp. 26766-26776	2 т.
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Д	(20) Conde-González, J.E., Peña-Méndez, E.M., Rybáková, S., Pasán, J., Ruiz-Pérez, C., Havel, J., Chemosphere, Volume 150, (2016), pp. 659-666	2 т.
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	(22) Maiti, S., Pramanik, A., Manju, U., Mahanty, S., Microporous and Mesoporous Materials, Volume 226, (2016), pp. 353-359	2 т.
	(23) Wee, L.H., Meledina, M., Turner, S., Van Tendeloo, G., Zhang, K., Rodriguez-Abelo, L.M., Masala, A., Bordiga, S., Jiang, J., Navarro, J.A.R., Kirschhock, C.E.A., Martens, J.A., Journal of the American Chemical Society, Volume 139, Issue 2, (2017), pp 819-828	2 т.
	(24) Vellingiri, K., Kumar, P., Deep, A., Kim, K.-H., Chemical Engineering Journal, Volume 307, (2017), pp. 1116-1126.	2 т.
	(25) Hou, J., Luan, Y., Huang, X., Gao, H., Yang, M., Lu, Y., New Journal of Chemistry, Volume 41, Issue 17, (2017), pp. 9123-9129.	2 т.
	(26) Chaemchuen, S., Luo, Z., Zhou, K., Mousavi, B.,	2 т.

	<p>Phatanasri, S., Jaroniec, M., Verpoort, F., Journal of Catalysis, Volume 354, (2017), pp. 84-91.</p> <p>(27) Rogge, S.M.J., Bavykina, A., Hajek, J., Garcia, H., Olivos-Suarez, A.I., Sepúlveda-Escribano, A., Vimont, A., Clet, G., Bazin, P., Kapteijn, F., Daturi, M., Ramos-Fernandez, E.V., Llabrés Xamena, F.X.I., Van Speybroeck, V., Gascon, J., Chemical Society Reviews Volume, 46, Issue 11, (2017), pp. 3134-3184.</p> <p>(28) Kochetygov, I., Bulut, S., Asgari, M., Queen, W.L., Dalton Transactions, (2018), 47 (31), pp. 10527-10535</p> <p>(29) Zhang, H., Huo, J., Li, F., Duan, C., Xi, H., "Rapid Synthesis of Hierarchical Porous Metal-Organic Frameworks and the Simulation of Growth", Crystal Growth and Design, (2018), 18 (11), pp. 6661-6669.</p>	<p>2 т.</p> <p>2 т.</p> <p>2 т.</p>
<p>Д</p>	<p><u>На работа:</u></p> <p><b>N. Drenchev</b>, I. Spassova, E. Ivanova, M. Khristova, K. Hadjiivanov, "Cooperative effect of Ce and Mn in MnCe/Al<sub>2</sub>O<sub>3</sub> environmental catalysts", Appl. Catal. B: Environmental, 138–139, (2013), pp. 362-372</p> <p><u>Цитирания:</u></p> <p>(1) Xiaojiang Yao, Changjin Tang, Fei Gaoab and Lin Dong, Catal. Sci. Technol., (2014), 4, 2814-2829</p> <p>(2) F. Arena, Catal. Sci. Technol., (2014), 4, 1890-1898</p> <p>(3) A. Pérez, M. Montes, R. Molina, S. Moreno, Applied Clay Science 95, (2014), 18–24</p> <p>(4) Xuehua Yu, Jianmei Li, Yuechang Wei, Zhen Zhao, Jian Liu, Baofang Jin, Aijun Duan and Guiyuan Jiang, Ind. Eng. Chem. Res., 53 (23), (2014), 9653–9664</p> <p>(5) Jingwei Li, Pei Zhao, Shantang Liu, Appl. Catal. A: General, 482 (2014) 363-369</p> <p>(6) Tang, W., Wu, X., Liu, G., Li, S., Li, D., Li, W., Chen, Y., Journal of Rare Earths, 33, (1), (2015), 62–69</p> <p>(7) Zhao, F., Gong, M., Zhang, G., Li, J., Journal of Rare Earths, 33, (6), (2015), 604–610</p> <p>(8) S.B. Umbarkar, M. K. Dongare, P. M. More and A. V. Biradar, World Patent WO2 015111079, (2015) [Scopus].</p>	<p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p> <p>2 т.</p>

Д	(9)	Zhu, X., Liu, S., Cai, Y., Gao, X., Zhou, J., Zheng, C., Tu, X., Applied Catalysis B: Environmental, Volume 183, (2016), Pp. 124-132	2 т.
	(10)	X. Zhang, Y.-Q. Deng, P. Tian, H. Shang, J. Xu and Y.-F. Han, Dynamic active sites over binary oxide catalysts: In situ/operando spectroscopic study of low-temperature CO oxidation over MnO <sub>x</sub> -CeO <sub>2</sub> catalysts, Appl. Catal. B, 191 (2016) 179 [ISI].	2 т.
	(11)	Sheykhan, M., Yahyazadeh, A., Ramezani, L., Molecular Catalysis Volume 435, (2017), Pages 166-173.	2 т.
	(12)	Arena, F., Di Chio, R., Filiciotto, L., Trunfio, G., Espro, C., Palella, A., Patti, A., Spadaro, L., Applied Catalysis B: Environmental, Volume 218, (2017), Pages 803-809.	2 т.
	(13)	Saeidi, M., Hamidzadeh, M., Research on Chemical Intermediates, Volume 43, Issue 4, (2017), Pages 2143-2157.	2 т.
	(14)	Li, W., Liu, H., M, X., Mo, S., Li, S., Chen, Y., Journal of Porous Materials, Volume 25, Issue 1, (2018), Pages 107-117	2 т.
	(15)	Chen, J., Chen, X., Chen, X., Xu, W., Xu, Z., Jia, H., Chen, J., Applied Catalysis B: Environmental, Volume 224, May (2018), Pages 825-835.	2 т.
	(16)	Yasir Bilal, Muhammad Ali Nasir, Sadia Nasreen, Niaz Ahmed Akhter, Riffat Asim Pasha, Muhammad Farhan Noor, Advances in Science and Technology Research Journal, 12(1), (2018), pp. 260–266.	2 т.
	(17)	Zhao, H., Han, W., Dong, F., Tang, Z., Journal of Industrial and Engineering Chemistry (2018), 64, pp. 194-205.	2 т.
	(18)	Arena, F., Di Chio, R., Espro, C., Palella, A., Spadaro L, Reaction Chemistry and Engineering (2018), 3 (3), pp. 293-300.	2 т.
	<u>На работа:</u>		
	<b>N. Drenchev</b> , P. Georgiev, K. Hadjiivanov, "FTIR study of <sup>12</sup> C <sup>16</sup> O and <sup>13</sup> C <sup>18</sup> O coadsorption on Cu-ZSM-5", J. Mol. Catal. A, 341 (1-2) (2011), pp. 7-13		
	<u>Цитирания:</u>		



Д	(1) Z.-Z. Qiu, Y.-X. Yu, J.-G. Mi, Appl. Surf. Sci., 258 (2012), p. 9629	2 т.
	(2) Frolich, K. , Bulánek, R., Frýdová, E., Microporous and Mesoporous Materials, 186 (2014), pp. 37-45	2 т.
	(3) Cortés-Reyes, M., Finocchio, E., Herrera, C., Larrubia, M.A., Alemany, L.J., Busca, G., Microporous and Mesoporous Materials, Volume 241, 15 (2017), pp. 258-265.	2 т.
	<p><u>На работа:</u></p> <p><b>N. Drenchev</b>, M. Mihaylov, P. Dietzel, A. Albinati, P. Georgiev, Hadjiivanov K.,” Low-Temperature Adsorption of H<sub>2</sub> and D<sub>2</sub> on Dehydrated and Water Precovered CPO-27-Ni”, Journal of Physical Chemistry C, 120 (40), (2016), pp. 23083-23092.</p> <p><u>Цитирания:</u></p> <p>(1) Rogge, S.M.J., Bavykina, A., Hajek, J., Garcia, H., Olivos-Suarez, A.I., Sepúlveda-Escribano, A., Vimont, A., Clet, G., Bazin, P., Kapteijn, F., Daturi, M., Ramos-Fernandez, E.V., Llabrés Xamena, F.X.I., Van Speybroeck, V., Gascon, J., Chemical Society Reviews Volume, 46, Issue 11, (2017), Pages 3134-3184.</p> <p>(2) Wang, S., Guo, Q., Liang, S., Li, P., Luo, J., Separation and Purification Technology, Volume 199, (2018), Pages 206-213.</p> <p>(3) Darren M. Driscoll , Diego Troya , Pavel M. Usov, Andrew J. Maynes, Amanda J. Morris, and John R. Morris, J. Phys. Chem. C, (2018), 122 (26), pp. 14582–14589.</p>	2 т.  2 т.  2 т.
Общ брой		106 т.

Група от показатели	Показател: 21. Индекс по Хирш (H) (Scopus) H= 5 (минимум) за доцент	Необходими 70 точки
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Общ брой		70 т.

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