

**Detailed modeling of sorptive and textural properties of CaO-based sorbents with various porous structures**

Bazaikin, Ya.V.; Malkovich, E.G.; Prokhorov, D.I.; **Derevshchikov, Vladimir** Separation and purification technology 2021 / art. 117746, 12 p. : ill <https://doi.org/10.1016/j.seppur.2020.117746> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**K<sub>2</sub>CO<sub>3</sub>-containing composite sorbents based on a ZrO<sub>2</sub> aerogel for reversible CO<sub>2</sub> capture from ambient air**

Veselovskaya, Janna; **Derevshchikov, Vladimir**; Shalygin, Anton S.; Yatsenko, Dmitry Microporous and Mesoporous Materials 2021 / art. 110624 <https://doi.org/10.1016/j.micromeso.2020.110624> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

**Multiscale study of carbon dioxide chemisorption in the plug flow adsorber of the anesthesia machine**

**Derevshchikov, Vladimir**; Kazakova, Evgenia; Yatsenko, Dmitry; Veselovskaya, Janna Separation science and technology 2021 / p. 485-497 <https://doi.org/10.1080/01496395.2020.1723029> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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**Derevshchikov, Vladimir**; Dulova, Niina; Preis, Sergei Journal of electrostatics 2021 / art. 103567, 9 p.: ill <https://doi.org/10.1016/j.elstat.2021.103567> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)