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Experimental Study of the Waste Gas of COIL Removing Iodine	1936
J.B. Zhou, P.Y. Dong and S.F. Guo Numerical Simulation of Heavy Metal (Pb) Distribution in Luoyuan Bay Based on Tidal	1930
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Numerical Study for Nanoparticle Removal in Vacuum Conditions J.P. Wu, Y.H. Zhang and H.L. Wang	1948
PCA Analysis and Concentration of Heavy Metal in the Soil, Guangdong, China C.L. Yang, R.P. Guo, R.Z. Liu, Q.L. Yue, X.J. Ren and Z.F. Wu	1952
Removal of Cd, Pb and Cu from Water Using Thiol and Humic Acid Functionalized Fe <sub>2</sub> O <sub>3</sub> Nanoparticles	
M. Wang and S.B. Chen	1956
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Shouxian Aerosol Radiative Properties Measured by DOE AMF and Compared with CERES-MODIS	
Y.J. Qiu, Q. Wang and F.C. Hu	1973
Speciation of Heavy Metals in the Surface Sediments from Northern Beibu Gulf Y.H. Li, A.R. Zheng and Z.K. Ma	1977
Spectral Analysis on Sub-Tidal Variability of Salinity in Modaomen Waterway of Pearl River Estuary, China	
Y.Y. Chen, X.L. Yin, D.L. Bai and L.C. Li	1982
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