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P.Y. Zhu	1851

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Analysis of Carbon Emission Structure of Agricultural Ecosystem - A Case Study of Rural Areas Surrounding Yuqiao Reservoir in Ji County of Tianjin, China	
X.M. Li, Y.A. Yang and G.J. Hao	1859
Analysis of Hubei Province Industry's Carbon Emissions Based on the LMDI	
H. Li and L. Wu	1865
CO₂ Abatement Allocation among Different Provinces of China Based on MACC	
H.L. Mu, X. Han and H.X. Zhao	1869
Research on the Influence of Carbon Trading on Jibei Grid Considering the Co-Ordination of Beijing, Tianjin and Hebei Province	
Z.K. Wei, Y.L. Du, D.N. Liu, Y.J. Xu and Y.Z. Li	1875
Specific Electrical Energy Consumption and CO₂ Emissions Assessment of Agrifood Industries in the Central Region of Portugal	
P.D. Silva, P.D. Gaspar, J. Nunes and L.P.A. Andrade	1880
Study on Evaluation Method of Carbon Reduction Capability in Real Estate Development Projects Based on AFSA	
G.L. Zhou and C. Lu	1887
The Changing of Climate Determined by Silicon	
D.F. Yang, S.X. Zhu, F.Y. Wang, H.Z. He and Y.J. Wu	1893
The Cooling of the Earth Determined by Orogenesis	
D.F. Yang, F.Y. Wang, H.Z. He, Y.F. Wu and S.X. Zhu	1897
The Development of the Generation Expansion Planning Model Considering Environmental Policies	
K.W. Kim, S.H. Hwang and B.H.H. Kim	1901