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Urban environments, as the major source regions of anthropogenic heating and pollutants, have unique biophysical, morphological, and thermodynamic characteristics due to continued infrastructure development that generally replaces natural landscapes with built-up structures. Urbanization affects not only temperature (urban heat island effect) but also atmospheric moisture, wind, boundary layer structure, cloud formation, dispersion of air pollutants, precipitation, and storms. For details, please see the paper starting on Page 819.