Predict indoor aerosol level by monitoring the energy consumption of appliances and HVAC system

• Explore indoor aerosol level in a house under different circumstances

• Energy use patterns of a house indicate HVAC system status and indoor activities. Through these data, study how indoor aerosols are generated and removed

Indoor activities have great impact on indoor aerosol levels

Energy usage patterns reveal source and loss processes of indoor aerosols:

• Strength of indoor aerosol source is tightly related to appliance power and its operation time

• Loss rates of aerosols are significantly different under different HVAC system and thermostat settings.

Energy use patterns provide better understanding of indoor nanoaerosol dynamics