1. Title
Soil Organic Carbon: Dynamics, Stabilization, and Environmental Implications

2. Type
Commission Symposium: Comm. 2.2-Soil Chemistry

3. Organizer(s) & Convener
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4. Rationale
Soils comprise the largest pool of organic carbon at the Earth's surface, exceeding the mass of carbon in all above ground biomass plus atmospheric CO2 combined. Despite the importance of soil systems to global carbon cycle, and the fact that land-use and climate change have the potential to impose significant changes in soil capacity to stabilize carbon against microbial degradation, our understanding of mechanisms regulating the stabilization of carbon in soil is rapidly evolving.

5. Objectives
This session will be inclusive of measurement and modeling studies of nano-scale mechanisms of soil organic carbon (SOC) stabilization, as well as their global implications, and will invite papers addressing diverse aspects of mineral-organic bonding interaction, C and N cycling, mineralization and gas emissions, global change and additional environmental phenomena.

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