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<b>Presentation Title:</b> <b>Synthesis and TEM analysis of novel inorganic nanotubes</b>	
<b>Abstract</b> <p>Synthesis and analysis of inorganic nanotubes have become an intriguing research topic over the last several years. Nowadays, inorganic nanotubes with interesting properties and potential applications constitute an important domain of the nanostructural family. Among these material systems, the nanotubes made of boron nitride, Si, III-N compounds, II-VI compounds, metal oxides are particularly important because of their unique properties and potential technological applications compared with conventional carbon nanotubes. It is of great interest to explore new synthesis pathways to form nanotubes of these materials; however, the reported tubular structures are either amorphous or polycrystalline forms, which would negatively affect their performance in real application. So, the synthesis of single-crystalline nanotubes from these materials and exploration of their properties are challenging tasks yet to be accomplished. We report herewith on a wide variety of novel inorganic nanotubes (covering the above inorganic materials) most recently synthesized and thoroughly analyzed within our Laboratory<sup>1-9</sup>). New properties of these inorganic nanotubes, including optical, electrical, thermal, mechanical, and gas adsorbing will be demonstrated. In particular, the effective functions of these nanotubes filled by other foreign materials, such as liquid metal will be highlighted. The authors will take an advantage of the state-of-the-art high-resolution transmission electron microscopy for the microstructure analysis and novel properties associated with these inorganic nanotubes.</p>	
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