Advances in CoAPO-5 and SAPO-5 film fabrication for the templated catalytic growth of carbon nanotubes

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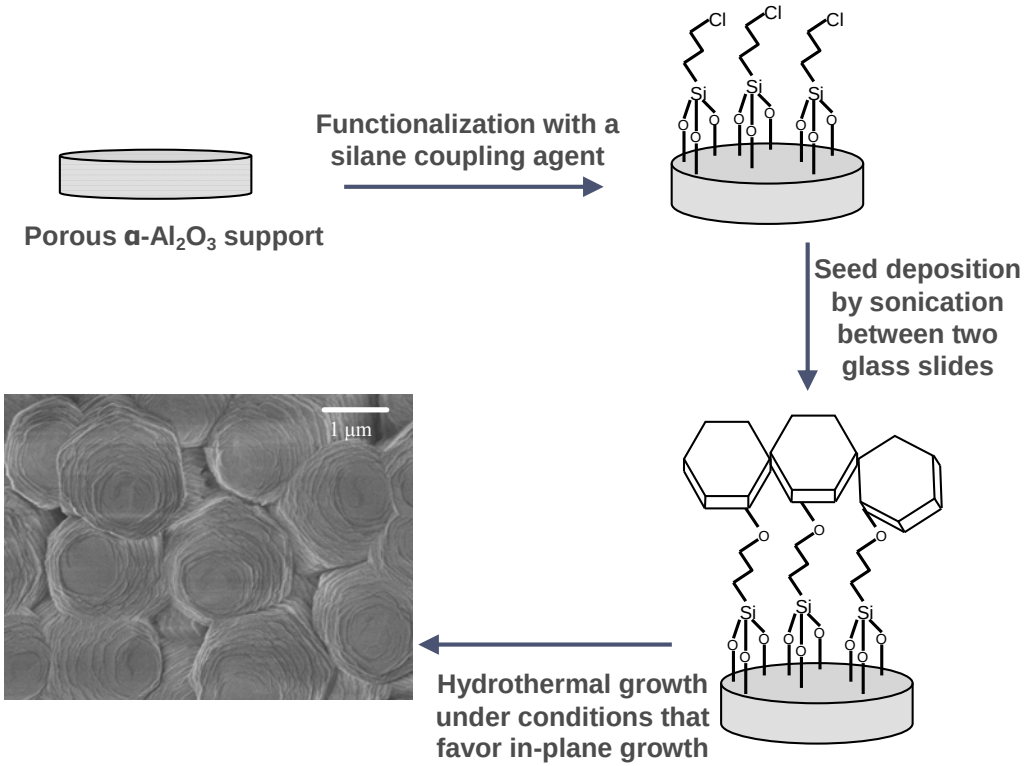
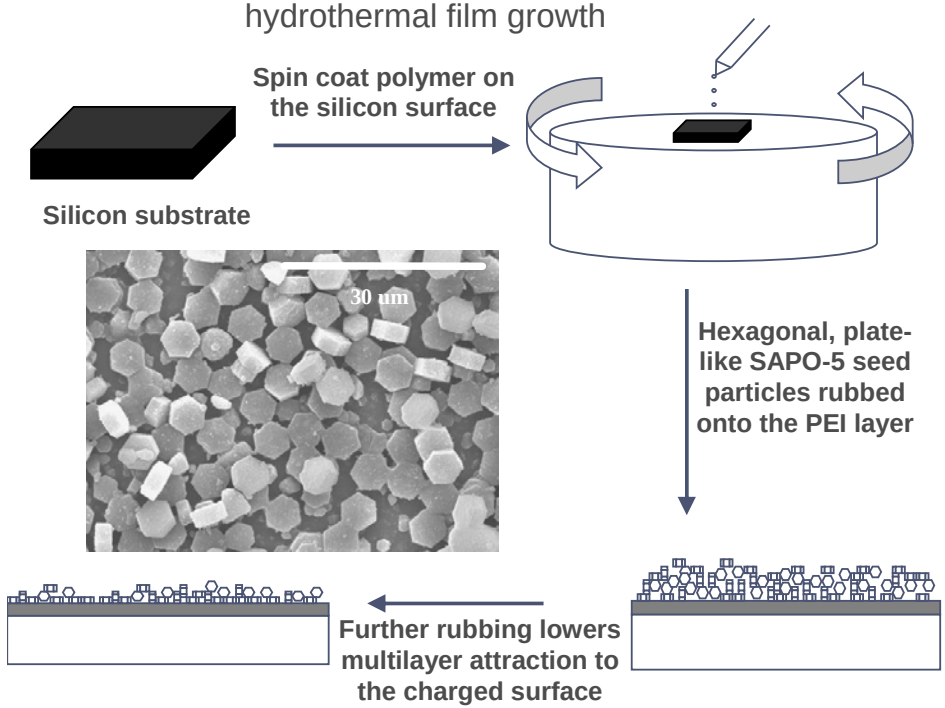
CoAPO-5 membranes synthesized on a porous support

- Columnar seeds "broken" through sonication in acid
- Careful control of synthesis parameters yielded a well-intergrown and continuous film
- Rapid thermal processing experiments underway to improve membrane quality for nanotube growth



Improved seeding of SAPO-5 on a silicon substrate

- SAPO-5 seeds "rubbed" onto a sticky polymer layer with a high charge density
- Particle width-to-thickness ratio is 2:1, preferred orientation occurs on the largest face
- Further experimental effort will focus on optimizing the seeded support procedure as well as hydrothermal film growth



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