

Supporting Information

for

Macromolecular shape and interactions in layer-by-layer assemblies within cylindrical nanopores

Thomas D. Lazzara¹, K. H. Aaron Lau², Wolfgang Knoll³, Andreas Janshoff⁴, Claudia Steinem*¹

¹Institute of Organic and Biomolecular Chemistry, Tammannstr. 2, 37077 Göttingen, Germany,

²Department of Biomedical Engineering, Northwestern University, 2145 Sheridan Road,

Evanston, IL 60202, USA, ³Austrian Institute of Technology, Donau City Str. 1, 1220 Vienna,

Austria, and ⁴Institute of Physical Chemistry, Tammannstr. 6, 37077 Göttingen, Germany

Email: Claudia Steinem - csteine@gwdg.de

*Corresponding author

Additional figures

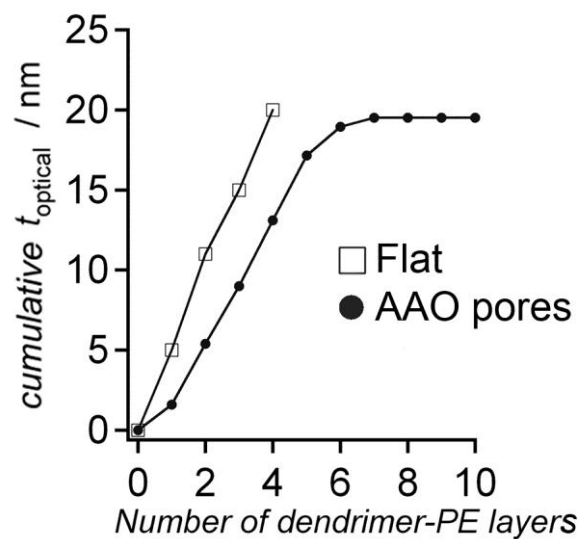


Figure S1: Adsorption kinetics of dendrimer-PEs on a flat, negatively charged, self-assembled monolayer on a gold surface, is contrasted with the adsorption on an AAO porous substrate with 65 nm diameter pores.

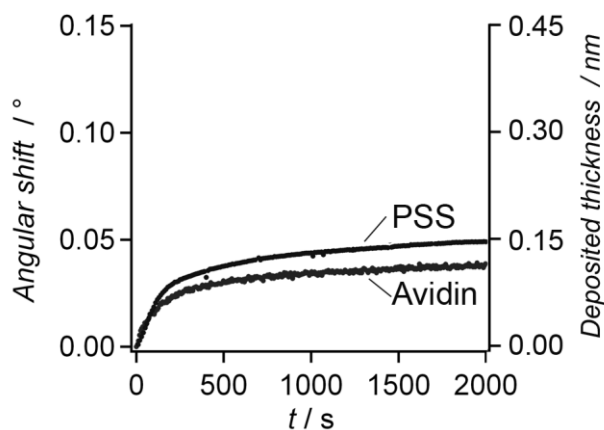


Figure S2: Adsorption kinetics of avidin and PSS onto AAO with pore diameters of about 25–30 nm. The rapid initial adsorption corresponds to deposition near the pore entrance, while the remaining slow adsorption is because of hindered transport of the macromolecules within the remainder of the pore length.

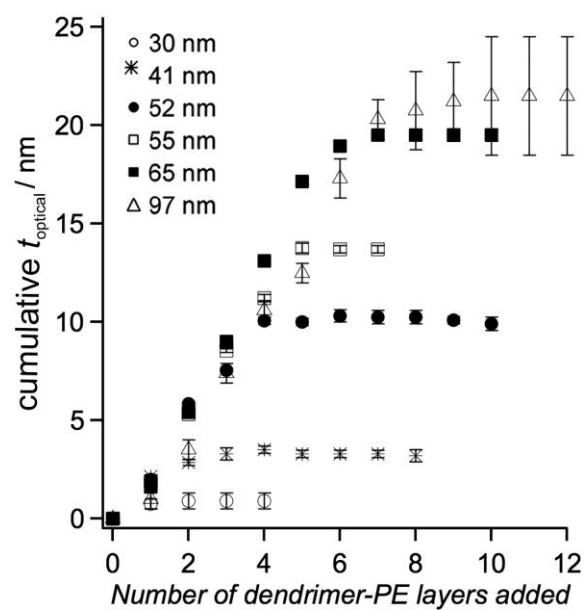


Figure S3: Cumulative optical thickness of the LbL multilayer film on the silanized inner-surface of the AAO cylindrical nanopores as a function of deposition steps and AAO pore diameter, for dendrimer-polyelectrolytes.