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## Investigation of morphology and stability of carbon nanomaterials dispersions with surfactants

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Carbon Nanomaterials (CN) like nanotubes, fullerene or graphene are showing a great number of applications in modern nanotechnology. One of many possible ways to employ CN is aqueous phase. In our work, we focused on problem of creating a well dispersed aqueous suspension of carbon nanotubes. As it was investigated, carbon nanotubes due to strong hydrophobic nature of their walls are difficult to disperse. Only way to stabilize a suspension is to use dispersants. In our work, we used various surfactants to prolong stability of suspensions. We would like to present how the surfactant molecules influenced the interactions between nanotubes. We used TEM, SEM and AFM to show how different types of surfactants interact with nanotubes and how stable the suspensions are.

### Biography

I'm a student of third year of physics study on Adam Mickiewicz University in Poznań. I'm interested in nanotechnology. I'm a laureate of Najlepsi z Najlepszych program, which is financed by Polish Ministry of Science and Higher Education.

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