## **The Truth About Thiols**

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Au-thiolate bond formation is one of the most commonly used methods of surface functionalization. Both for Au electrodes in electrochemical sensors and Au nanoparticles in lateral flow assays. Making it one of the most important chemistries in biosensor fabrication. The functionalization is typically done spontaneously in solution over a couple of hours. However, this is actually one of the most fascinating, complex and least understood chemistries currently in use. In this presentation, the history, in depth theory, current state of the art, open research questions and future perspectives of thiol research will be presented and discussed