**NiSx@MoS2 Heterostructure Prepared by Atomic Layer Deposition as high Performance Hydrogen Evolution Reaction Electrocatalysts in Alkaline Media**

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Figure S1. SEM image of NiSx on CC with 600 cycles..

Table S1. The ohmic resistance (Rs), constant phase element and charge transfer resistance (Rct) of pristine MoS2, 5NiSx@MoS2, 25NiSx@MoS2 and 100NiSx@MoS2 heterostructure.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | Rs (ohm) | CPE-T | CPE-P | Rct (ohm) |
| MoS2 | 4.52 | 1.20 | 0.94 | 38.22 |
| 5NiSx@MoS2 | 3.51 | 0.68 | 0.88 | 10.74 |
| 25NiSx@MoS2 | 3.584 | 0.83 | 0.89 | 4.52 |
| 100NiSx@MoS2 | 3.238 | 0.83 | 0.87 | 6.61 |