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**Designing and facilely synthesizing a series of cobalt nitride (Co<sub>4</sub>N) nanocatalysts as non-enzymatic glucose sensors: a comparative study toward the influences of material structures on electrocatalytic activities**

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**Abstract**

Designing high-efficiency electrocatalysts for glucose concentration detection plays a pivotal role in developing various non-enzymatic glucose detection devices. Herein, we have successfully designed and synthesized various cobalt nitrides (Co<sub>4</sub>N) by using different weak bases (*i.e.* hexamethylenetetramine (HMT), urea, and ammonium hydroxide (AH)) through nitridation treatment in ammonia (NH<sub>3</sub>)

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