

# Nuclear magnetic resonance in one-dimensional spin chains

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**Abstract:** This paper shows how different lengths, terminations and electronic spin states of one-dimensional chains of Cu-O affected the shieldings in copper nuclear magnetic resonance signals. The calculation was performed for both periodic structure and model clusters of different size and shape. The obtained results showed that there was relatively large splitting of  $^{63}\text{Cu}$  resonance for each copper position in the chain. © 2010 Elsevier B.V. All rights reserved.

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