

JOINT EVENT

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## **A novel approach for isolation of PCR ready-human DNA using copper nanoparticles from skeletal remains**

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The present study represents a novel approach for PCR ready-Human DNA extraction from skeletal remains using copper nanoparticles (CuNPs) for the personal identification. To achieve rapid, cost effective, sensitive and non-hazardous method for DNA extraction, we utilized CuNPs synthesized using microwave. The applicability of this approach was first tested in blood and afterward, the system was applied to skeletal remain samples. The method yields good DNA for PCR reactions from small quantities of blood and skeletal remains. Consequently, even small quantities of nanoparticles could be potentially utilized for a highly efficient isolation of DNA from skeletal remains as well as from ancient archeological samples. The present method has advantages that it is quick with high yield, inexpensive, robust, environmentally friendly and does not require use of hazardous organic solvents.

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