

## عنوان مقاله:

Mineralogy and Elemental Analysis of Sasanian-Early Islamic Potsherds from the Jahangir Archaeological Monument in Ilam Based on Petrography, XRF, ICP, and TL Methods

## محل انتشار:

فصلنامه مطالعات باستان شناسی، دوره 15، شماره 2 (سال: 1402)

تعداد صفحات اصل مقاله: 19

## نویسندگان:

Leila Khosravi - Associate Professor, Research Institute of Archaeology, Research Institute of Cultural Heritage and Tourism, Tehran, Iran

Milad Baghsheikhi - Ph.D. Candidate in Department of Archaeology, Faculty of Literature and Humanities, University of Tehran, Tehran, Iran

## خلاصه مقاله:

To date, no experimental investigations utilizing petrographic, XRF, ICP, or TL methodologies have been undertaken for the analysis of Sasanian and Early Islamic pottery in Western Iran. Consequently, the findings of this study are anticipated to contribute valuable insights into the pottery production processes prevalent during this historical period in Western Iran. To achieve this objective, eight pottery specimens retrieved from the excavations of the Jahangir monument were submitted to the Research Institute of Cultural Heritage and the Geological Survey for petrographic analysis, while two samples each were designated for XRF, ICP, and thermoluminescence assessments. The primary research inquiries pertain to elucidating the composition and structure of the pottery, determining the firing intensity in the kiln, and discerning whether the pottery is of indigenous or imported origin. The outcomes of the experiments indicate the presence of three predominant compounds—quartz, iron oxide, and calcite—in the majority of samples procured from the Jahangir monument. Nonetheless, certain pottery specimens incorporate mica particles or chert stone in the clay composition. With few exceptions, the pottery is ascertained to be domestically manufactured, denoting its local provenance within the region. The texture of the selected pottery samples is characterized as silty, porphyritic, and inhomogeneously silty. The identification of calcite in the clay of all Jahangir pottery suggests a maximum kiln temperature of  $800^{\circ}\text{C}$  during the firing process. Furthermore, notwithstanding a limited number of exceptions, the scarcity of soil variations in the majority of pottery specimens implies a shared geographical origin

## کلمات کلیدی:

Pottery, Petrography, XRF, ICP, Thermoluminescence Dating, Jahangir

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1920078>

