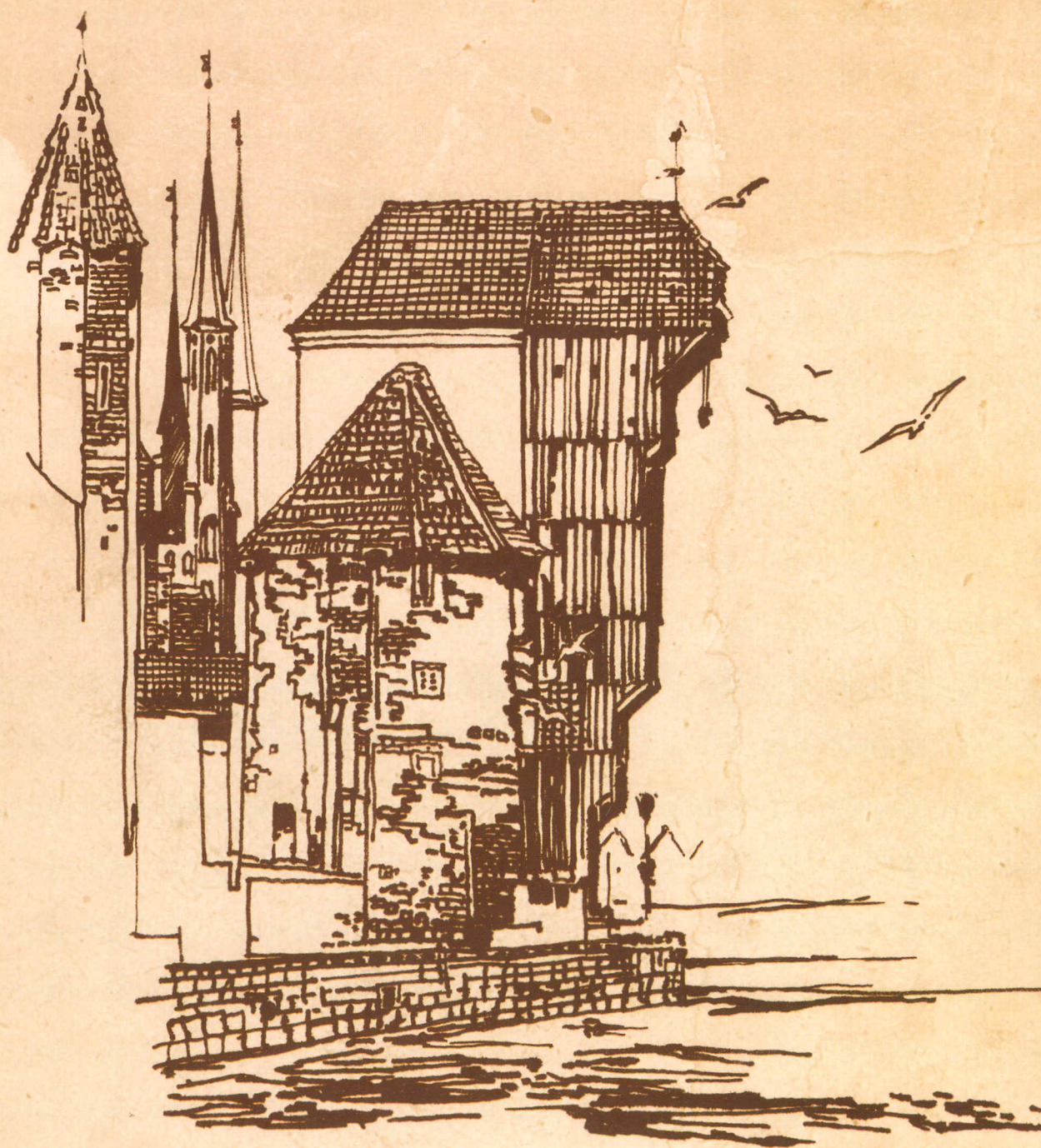


# Proceedings of 15<sup>th</sup> International Conference on Heavy Metals in the Environment



GDAŃSK, POLAND, SEPTEMBER 19-23, 2010  
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**PROCEEDINGS  
OF 15<sup>th</sup> INTERNATIONAL CONFERENCE  
ON HEAVY METALS IN THE ENVIRONMENT**

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**DEPARTMENT OF ANALYTICAL CHEMISTRY,  
CHEMICAL FACULTY, GDANSK UNIVERSITY OF TECHNOLOGY**

**SEPTEMBER 19-23, 2010  
GDANSK, POLAND**

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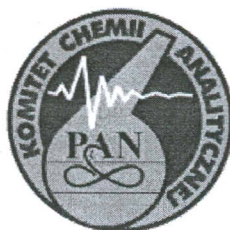
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***Comparison of Two Digestion Methods from Surface and Burial Sediments in Industrial Area of Pančevo, Serbia***

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**Abstract**

Two used digestion procedures: microwave aqua regia and microwave aqua regia plus HF, were compared for digestion of 2 standard reference material and 36 surface and burial sediments within an industrial area in Pančevo. Samples collected at 20 locations within petrochemical and at 16 locations in near by non-petrochemical area and were extracted and analyzed by ICP/OES. Ten elements such as: Ba, Cd, Cu, Cr, Mn, Fe, Ni, Pb, V and Zn were analyzed. Accuracy was also acceptable for certified metals in aqua regia plus HF being 78-110 % except for Pb in BCR 143 R standard where it was 172 %. Accuracy for certificated metals in aqua regia digestion was acceptable by being 80-113%. Precision for aqua regia with HF were less than 5 %, while for aqua regia was little bit higher but less than 10 %, except for V where it was 12 % and for Cd it was 28 %. The aqua regia with HF has slightly better precision than the simple aqua regia.

**Key words:** surface and burial sediments, petrochemical industry, aqua regia, aqua regia plus HF