

Title	Spectrophotometric determination of palladium with a new chelating reagent, N, N-dimethyl-N'-(4-methyl-5-nitro-2-thiazolyl) thiourea
Sub Title	
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Publisher	共立薬科大学
Publication year	1982
Jtitle	共立薬科大学研究年報 (The annual report of the Kyoritsu College of Pharmacy). No.27 (1982. ) ,p.57- 57
JaLC DOI	
Abstract	
Notes	抄録
Genre	Technical Report
URL	<a href="https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000027-0057">https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN00062898-00000027-0057</a>

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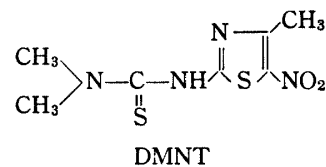
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## Spectrophotometric Determination of Palladium with a New Chelating Reagent, N,N-Dimethyl-N'-(4-methyl-5-nitro-2-thiazolyl) thiourea\*

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A new spectrophotometric method for the determination of palladium with *N,N*-dimethyl-*N'*-(4-methyl-5-nitro-2-thiazolyl)thiourea (DMNT) is proposed. DMNT instantly forms a yellow chelate with Pd (II) at pH 2 at room temperature, which is readily extracted into organic solvents such as chloroform and shows a higher absorption maximum ( $\epsilon=40,400$ ) at 413 nm. The ratio of Pd(II) to reagent in the chelate is 1 : 2 as determined by the widely used method and also verified by synthesis of the authentic Pd-chelate. The chelate conforms well with the Lambert-Beer's law over a wide concentration range (3.3—22  $\mu\text{g}$  in 10 ml chloroform). The optimum concentration range of palladium for spectrophotometry by the Ringbom plot is 5.6—18.6  $\mu\text{g}$  in 10 ml of chloroform solution. This method gives a good reproducibility, high sensitivity and high accuracy in the presence of many foreign ions.



\* 本報告は, Mikrochimica Acta [Wien] 1982 II 271-278 に発表.