

**PEMBUATAN SENSOR LUTETIUM(III) BERBASIS SENYAWA
Dodecandioylbis(1-Phenyl-3-Methyl-5-Pyrazolone)UNTUK PENENTUAN ION
LUTETIUM(III) SECARA POTENSIOMETRI**

(Preparation Lutetium (III) Sensor with 4-Dodecandioylbis(1-Phenyl-3-Methyl-5-Pyrazolone) for Determination of Lutetium (III) Potentiometric)

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ABSTRAK

Telah berhasil disintesis turunan pyrazolone yaitu *4-dodecandioylbis(1-phenyl-3-methyl-5-pyrazolone)* atau (H₂DdBP) dengan metode Jensen, melalui reaksi *1-phenyl-3-methyl-5-pyrazolone* dan *dodecandioyl chloride dalam suasana basa*. Senyawa yang dihasilkan dalam bentuk keto dengan titik leleh 148-152°C, puncak vibrasi 3451 (br, OH), 1624 (s, C=O), 1589 (s, phenyl C=C), 1558 (s, pyrazolone ring). Pergeseran kimia untuk ¹H-NMR adalah 7.81-7.84, 7.43-7.46, 7.26-7.290 (m, 10H, Ph; 2.72-2.75 (t,4H, (CH₂)₂); 2.47 (s, 6H, CH₃); 1.71-1.76 (m, 4H, (CH₂)₂); 1.32 (m, 12H, (CH₂)₆)

Kata kunci: 4-dodecandioylbis(1-phenyl-3-methyl-5-pyrazolone, ionofor, metode jensen, 1-phenyl-3-methyl-5-pyrazolone, dodecandioyl chloride.

ABSTRACT

Pyrazolone derivative, *4-dodecandioylbis(1-phenyl-3-methyl-5-pyrazolone)* or (H₂DdBP) derivatives have been successfully synthesized by the method of Jansen. This method through the reaction *1-phenyl-3-methyl-5-pyrazolone and dodecandioyl chloride* in a base. Compound produced in the keto form with a melting point 148-152°C, vibration peak 3451 cm⁻¹ (br, OH), 1624 cm⁻¹ (s, C=O), 1589 cm⁻¹ (s, phenyl C=C), 1558 cm⁻¹ (s, pyrazolone ring). Chemical shift for ¹H-NMR are 7.81-7.84, 7.43-7.46, 7.26-7.290 (m, 10H, Ph; 2.72-2.75 (t,4H, (CH₂)₂); 2.47 (s, 6H, CH₃); 1.71-1.76 (m, 4H, (CH₂)₂); 1.32 (m, 12H, (CH₂)₆).

Keywords : 4-dodecandioylbis(1-phenyl-3-methyl-5-pyrazolone, ionofor, metode jensen, 1-phenyl-3-methyl 5-pyrazolone, dodecandioyl chloride