

This article was downloaded by:

On: 30 January 2011

Access details: Access Details: Free Access

Publisher Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Phosphorus, Sulfur, and Silicon and the Related Elements

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713618290>

REACTION OF THIOSALICYLIC ACID WITH 4-CHLOROQUINOLINES

Julian Mirek^a; Zbigniew Urbanek^a

^a Institute of Chemistry, Jagiellonian University, Krakow, Poland

To cite this Article Mirek, Julian and Urbanek, Zbigniew(1979) 'REACTION OF THIOSALICYLIC ACID WITH 4-CHLOROQUINOLINES', Phosphorus, Sulfur, and Silicon and the Related Elements, 6: 1, 207

To link to this Article: DOI: 10.1080/03086647908080377

URL: <http://dx.doi.org/10.1080/03086647908080377>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

REACTION OF THIOSALICYLIC ACID WITH 4-CHLOROQUINOLINES

Julian Mirek and Zbigniew Urbanek

Institute of Chemistry, Jagiellonian University, 30-060 Krakow,
Poland

In general 4-thioquinoline ethers may be obtained using following procedures:

1. The reaction of 4-thioquinolones with organic halogen derivatives or other alkylating reagents /e.g. sulfates/. The reaction is usually carried out in the alkaline medium. This procedure is suitable for the synthesis of 4-alkylthioquinolines and in some cases 4-arylthioquinolines providing that the halogen of aryl halide is strongly activated by electron withdrawing substituents.
2. The reaction of 4-halogenoquinolines with thiols. This reaction is suitable for the synthesis of both aliphatic and aromatic 4-thioquinoline ethers. If conditions of the reaction are carefully chosen the second procedure can give excellent results. Thiosalicylic acid reacted with 4-chloroquinolines in dry pyridine to give o-carboxyphenyl-4-thioquinoline ethers with % 85-99 yields. The precipitation of the product was achieved by addition of a few drops of water. The water is needed for the formation of hydrates. More facile purification by crystallisation from ethanol could be accomplished for the hydrates than for the anhydrous species.