Title: Condensation of dithizone analogues with 4, 5 dihalopyrimidine, pyrimido[5, 4-e][1,3,4] thiadiazines or pyrimido[4, 5-e][1,3,4] thiadiazines?

Author(s): M. Nikpour[a], M.Bakavoli[b], M. R. Bigdeli[a]*, and M.Rahimizadeh[b]
Address: [a]*Department of Chemistry, School of Sciences, Islamic Azad University of Ahvaz, Ahvaz*
[b]*Department of Chemistry, School of Sciences, Ferdowsi University, Mashhad*
E-Mail: bigdelide@yahoo.de

Despite the importance of pyrimidothiadiazines Only one derivative of pyrimido[5, 4-*e*]1,3,4thiadiazine ring system is known in Patent literature [1].recently we reported a new approach for addition of 1,3,4-hiadiazine ring to other heterocycles including heterocyclization reaction of 2-phenylhydrazinecarbodithioates with 2, 3-dichloroquinoxaline [2]. We decided to extend this strategy for preparation of 3-alkylthio 6-chloro 8-methyl 1-phenyl-pyrimido[5, 4-e]1,3,4 thiadiazines by application of 5-bromo-2,4-dichloro-6-methylpyrimidine that recently reported [3](Scheme1).
This reaction has two possible products, pyrimido[5, 4-e][1,3,4] thiadiazines and pyrimido[4, 5-e][1,3,4] thiadiazines. Orientation of this reaction was determined by physical and spectral data. Mechanism of the reaction was discussed.

References:

1. Eliot, Arthur John *U. S. 4, 025, 510* 24 may 1977 [*C. A.* **87**, P153420].
2. M. Bakavoli, M. Nikpour and M. Rahimizadeh *Phosphorus Sulfur and Silicon and the Related Elements*, **180**, 10, 2265
3. M. Bakavoli, M. Nikpour and M. Rahimizadeh, *J. Heterocycl. Chem.* **43**, 1327 (2006).