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Group-based cryptography has emerged as an exciting interdisciplinary area (see [MSV]). Our purpose is to show polycyclic groups(see [S], [HEO], [EK], [KK]) offer a gateway to group based cryptography. We show how classical public-key algorithms can naturally be formulated with in the context of polycyclic groups, and test it, using the framework of group based cryptography.

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[HEO]Holt, Eick, O'Brien, Handbook of computational group theory. Chapman & Hall, 2005

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