Studies towards the synthesis of dictyolomides A and B, and 6-methoxydictyolomide

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INTRODUCTION
Leishmaniasis is a tropical disease caused by protozoa parasites of the genus *Leishmania* and remains a significant health issue in large part due to the lack of effective and affordable drugs and increasing resistance against existing drugs. 4-Quinolones, for example dictyolomides, have been reported as potential antileishmanial agents. In this work we describe the studies towards the synthesis of dictyolomides A and B, and 6-methoxydictyolomide which will be evaluated against *Leishmania* sp and determine the stereochemistry of the center 3.

RESULTS AND DISCUSSION
We proposed a convergent synthesis for dictiolomides as described in Scheme 1.

![Scheme 1](image1)

The synthesis of bromides 1 and 2 began with the methodology reported by Kaslow et al., where 4-quinolinine derivatives were prepared employing the condensation of aryl amines with ethyl acetonedicarboxylate, in refluxing, under acid catalyzes, following by cyclization at 250°C using phenyl ether as solvent. After, the reduction of the ester group was performed using borane, followed by bromination, and protection of the quinolinone ring with TBDMSCl (Scheme 2).

![Scheme 2. Preparation of bromides 1 and 2](image2)

The synthesis of tosylates 3 and 4 are being studied, some tests were performed, but the coupling, via Grignard reaction has not yet provided tosylate 3 satisfactory (Scheme 3).

![Scheme 3](image3)

CONCLUSION
In conclusion, bromides 1 and 2 were successfully synthesized. The studies for the synthesis of 3 will continue, and the synthesis of tosylate 4 will be completed, for subsequent coupling reaction and obtaining Dictiolomides.

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REFERENCES