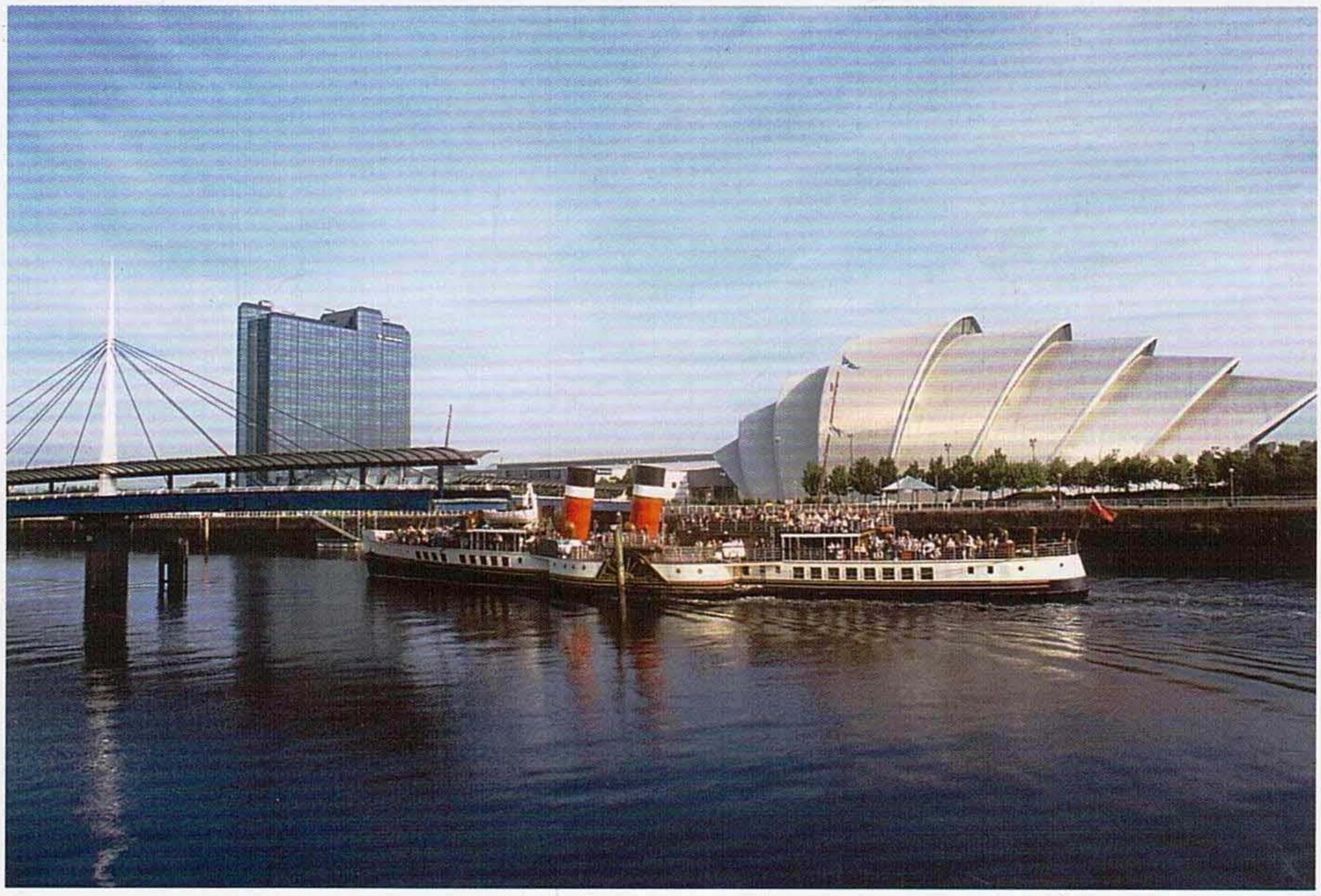
23rd International Congress on
Heterocyclic Chemistry
GLASGOW, SCOTLAND

ICHC2011

23rd International Congress of Heterocyclic Chemistry

31st July – 4th August 2011



Scottish Exhibition and Conference Centre
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Programme & Abstract Book

Novel Hydroxy-9*H*-xanthen-9-ones Derivatives: Synthesis and Bioactive Properties

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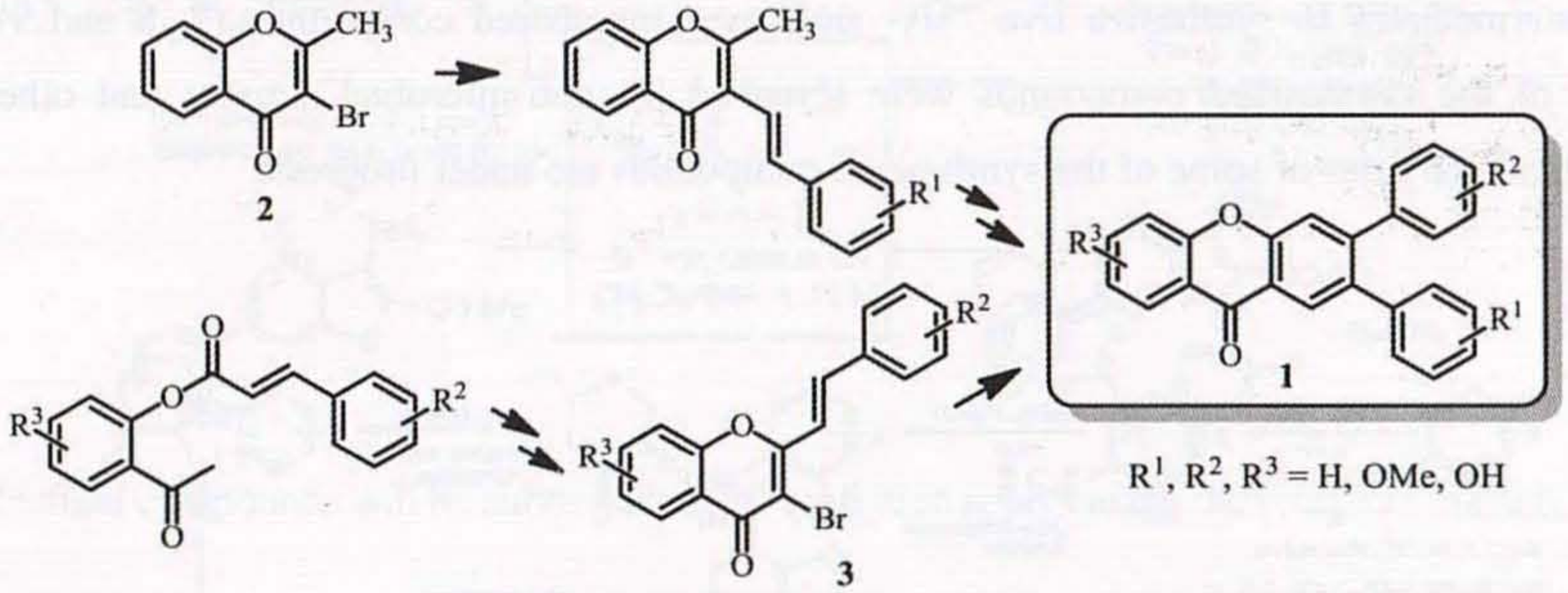
9*H*-Xanthen-9-ones commonly referred as xanthones are a large group of natural heterocyclic compounds with significant bioactive properties (*e.g.* anti-inflammatory, antibacterial, antimalarial, cytotoxicity and radical scavenging activity).[1] In order to explore some of these biological assessments, we developed two methodologies for the synthesis of novel hydroxylated 2,3-diarylxanthone derivatives. The first synthetic route is based on the Heck reaction of the 3-bromochromone **2** followed by aldol condensation and electrocyclisation/oxidation processes to afford the 2,3-diaryl-9*H*-xanthen-9-ones **1**. An efficient and more general approach is the Heck reaction of 3-bromo-2-styrylchromones **3** with styrenes as olefins followed by the *in situ* electrocyclisation/oxidation processes.[2] Pharmacological studies involving the hydroxy-9*H*-xanthen-9-ones **1**,[3] which are obtained after cleavage of the methyl group, will also be presented and discussed.



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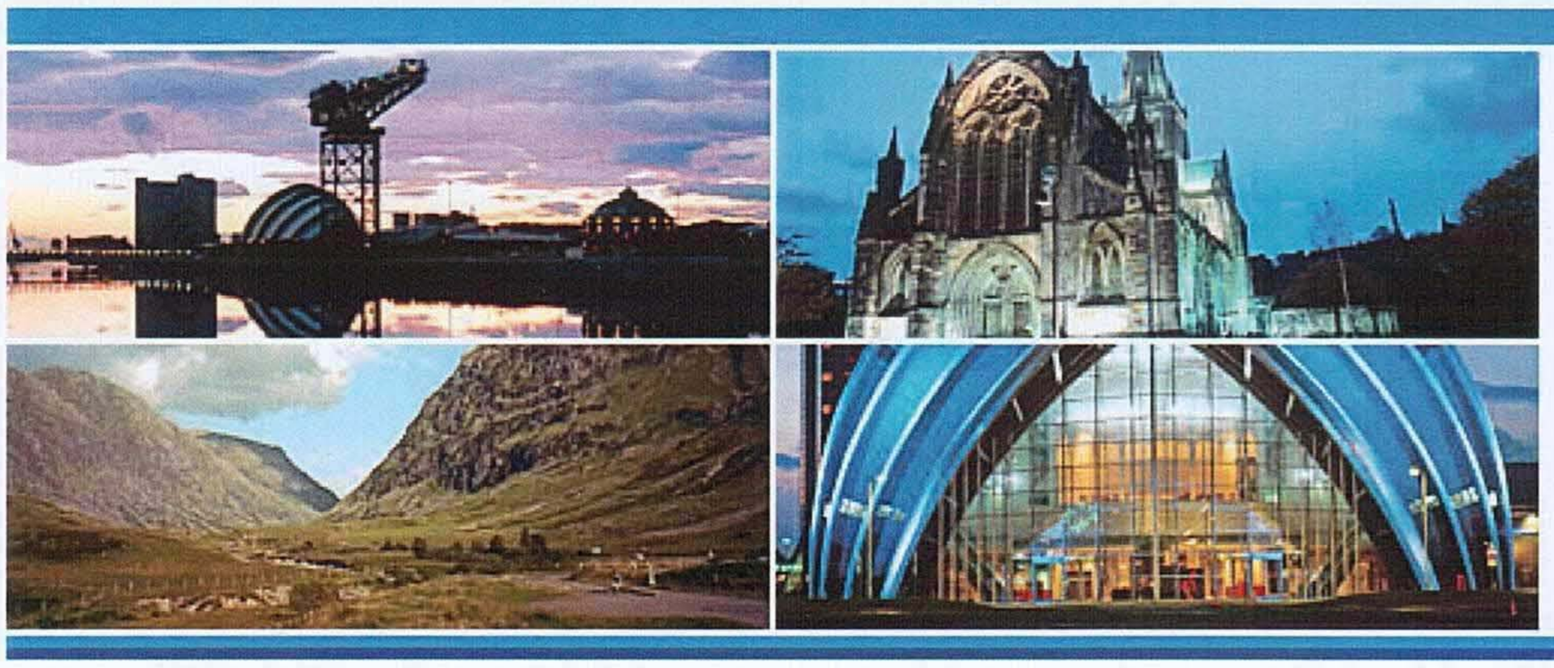
References

(1) Brase S., Encinas A., Keck J., Nising C. F. *Chem. Rev.* **2009,** *109,* 3960.

(2) Santos C. M. M., Freitas M., Ribeiro D., Gomes A., Silva, A. M. S., Cavaleiro, J. A. S., Fernandes, E. *Bioorg. Med. Chem.* **2010**, *18*, 6776.

(3) Santos C. M. M., Silva A. M. S., Cavaleiro J. A. S. *Eur. J. Org. Chem.* **2009**, 2642.



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This is to certify that

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