These findings are significant for two additional reasons. First, they suggest the use of simple aryl halides as chlorine radical traps in investigations that employ NaOCl as an oxidant, thus providing useful mechanistic information. Second, they are suggestive of additional synthetic applications that utilize this intrinsic ability of Ni^{II} catalysts to homolytically cleave Cl_2O or similar species. Efforts are presently underway to fine-tune this catalysis for the formation of carbon–carbon bonds via intramolecular radical cyclization reactions.

Experimental Section

Solvents (HPLC grade) and aryl halides were obtained from commercial sources and used without further purification. Ni[cyclam]$(NO_3)_2$,[9] Ni(salen),[10] and chlorine monoxide[12] were synthesized according to literature procedures. Ni(TPP), Fe(TPP)Cl, Mn(TPP)Cl, and benzyltributylammonium bromide were obtained from Aldrich. NaOCl (pH 9.0) was obtained by adding concentrated HCl to commercial bleach (determined to be 0.77 M in NaOCl by iodometric titration).

Analytical gas chromatography was performed on a 5% phenyl methyl silicone column (10 m × 0.53 mm), using a Hewlett-Packard 5890A gas chromatograph with thermal conductivity detection; a linear oven temperature program initiated at 35 °C and increased at 10 °C/min to 180 °C was employed. Low resolution GC/MS spectra were obtained on a Hewlett-Packard 5980A spectrometer with 70-eV electron impact ionization. The pH of the NaOCl was determined with a Corning 250 pH meter and was calibrated before use. All reactions were run in stoppered round-bottom flasks (10 mL).

General Procedure for Halogen Exchange. To a vigorously stirred $CHCl_3$ (6 mL) solution containing Ni^{II}TPP (8.0 mg, 0.012 mmol), *p*-bromochlorobenzene (38 mg, 0.20 mmol), and benzyltributylammonium bromide (3.0 mg, 0.0084 mmol) was added pH 9.0 NaOCl (7.8 mL, 6.0 mmol, 0.77 M). After 30 min, the stirring was stopped and the organic layer was passed through a short column of neutral alumina (activity III). Rotary evaporation of the solvent afforded a 75% yield (22 mg, 0.15 mmol) of pure *p*-dichlorobenzene. For analytical experiments (results reported in Table I), a similar reaction was carried out on half scale, using various aryl bromides and an internal standard, typically *o*-dichlorobenzene. An aliquot of the organic layer was passed through a short column of alumina and analyzed by GC. Higher yields were typically observed by GC analysis compared to preparative isolation and weighing. Co-injection of the reaction with an authentic sample of the aryl chloride allowed for the unambiguous identification of products. Low resolution GC/MS analysis was also performed.

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Additions and Corrections

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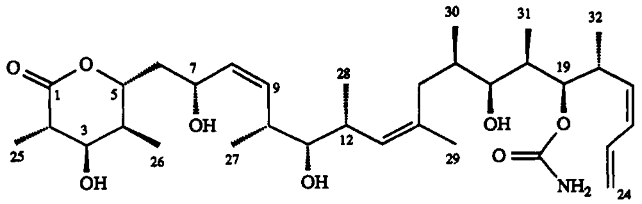
Hson Mou Chang,* Kwok Ping Cheng, Tai Francis Choang, Hak Fun Chow, Kuk Ying Chui,* Po Ming Hon, Fan Wah Lau Tan, Yun Yang, Zeng Pei Zhong, Chi Ming Lee,* Hing Leung Sham,* Chun Fei Chan, Yu Xin Cui, and Henry N. C. Wong*. Structure Elucidation and Total Synthesis of New Tanshinones Isolated from *Salvia miltiorrhiza* Bunge (Danshen).

Page 3538, ref 4 should read as follows: Zhang, H.-Y.; Ouyang, R. *Acta Pharm. Sinica* **1979**, *14*, 288.

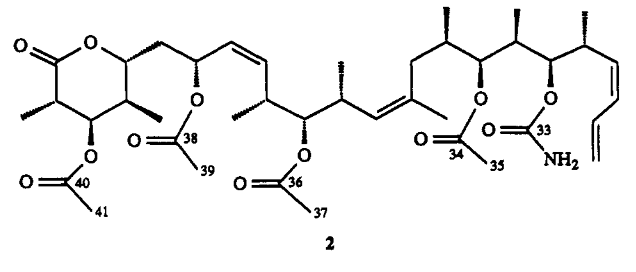
Page 3539, column 1, line 30: $H_{6\beta}$ should be $H_{6\alpha}$.

Sarath P. Gunasekera,* Malika Gunasekera, Ross E. Longley, and Gayle K. Schulte. Discodermolide: A New Bioactive Polyhydroxylated Lactone from the Marine Sponge *Discodermia dissoluta*.

Page 4912. The relative stereochemistry of the structures **1** and **2** was transposed incorrectly from the URANUS drawing. The correct relative stereochemistry of the structures **1** and **2** are given below.



1



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