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(54) **REFINED ROUTES TO CHLORIN BUILDING BLOCKS**

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(52) **U.S. Cl.** **540/145**; 540/465; 540/468; 540/469; 540/472

(58) **Field of Search** 540/145, 465, 540/468, 469, 472

(56) **References Cited**

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(57) **ABSTRACT**

A method of making chlorins comprises the steps of reacting (e.g. condensing) a dipyrrin western half intermediate with an eastern half intermediate to form a tetrahydrobilene, and then cyclizing the tetrahydrobilene to form a chlorin. Intermediates including tetrahydrobilenes useful in such reactions are also described.

15 Claims, 4 Drawing Sheets