CONCLUSION

The application of the Wacker reaction for the synthesis of natural products which containing oxabicyclic moieties has been demonstrated by our group. Herein, we reported the synthesis of some pyrannonaphthoquinones ((±)-isagarin (11), (±)-marticin (12, (±)-isomarticin (13)) via Wacker process as the key step.

The synthesis of (±)-isagarin (11) starting from 2-bromo-1,4-naphthoquinone (6) has been achieved in 5 steps with 24.1% overall yield. (±)-Marticin (12) and (±)-isomarticin (13) have been successfully synthesized from a commercially available vanillin (141) or *p*-hydrobenzoquinone (154). (±)-Marticin (12) and (±)-isomarticin (13) has been successfully synthesized from either vanillin (141) in 15 steps in 0.27% overall yields or *p*-hydrobenzoquinone (154) in 14 steps in 0.36 % overall yields.