**Title of Article:** Accumulation of Organochlorines in *Tilapia guineensis* and *Sarothorodon melanotheron* from Lagos Lagoon and Agboyi Creek, Nigeria

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**Abstract:** Two fish species of tilapia, *Tilapia guineensis* and *Sarothorodon melanotheron*were sampled from Lagos Lagoon and Agboyi Creek between December, 2008 and September, 2009 during the dry and wet seasons. They were analysed for organochlorines: aldrin, dieldrin, endrin, DDT, heptachlor, HCH, endosulfan, chlordane and methoxychlor. The muscle tissues and organs of the fishes were subjected to cold extraction and clean-up. The detection and determination of the organochlorine residues were performed using a gas chromatograph with a 63Ni electron capture detector. All the fishes had condition factor > 1. The organochlorine residues in the fishes in Lagos Lagoon were more than the level in Agboyi Creek while a higher concentration of the residues was observed during the dry season. The muscle tissues of the female fishes accumulated higher organochlorines than the muscle tissues of the male fishes. *Tilapia guineensis* accumulated higher residues in Agboyi Creek while *Sarothorodon melanotheron*accumulated higher residues in Lagos Lagoon.   
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American Society for Testing and Materials The order of accumulation of residues was gills>livers>small intestines>kidneys> muscles.   
der·mal or **der·mic**  
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Of or relating to the skin or dermis. **depuration (dēˈ·py** **ASTM***abbr.*American Society for Testing and Materials [Araoud et al., 2007](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T6P-4TJ1HR5-1&_user=7188513&_coverDate=12%2F31%2F2008&_rdoc=1&_fmt=high&_orig=search&_origin=search&_sort=d&_docanchor=&view=c&_searchStrId=1496229297&_rerunOrigin=google&_acct=C000071367&_version=1&_urlVersion=0&_userid=7188513&md5=24e45c32385f1a28d1248de6e272fe75&searchtype=a#bbib2) M. Araoud, W. Douki, A. Rhim, M.F. Najjar and N. Gazzah, Multiresidue analysis of pesticides in fruits and vegetables by gas chromatography–mass spectrometry, *Journal of Environmental Science and Health B* **42** (2007), pp. 179–187. [Full Text via CrossRef](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=3&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fdx.doi.org%2F10.1080%252F03601230601123474&_acct=C000071367&_version=1&_userid=7188513&md5=fb11b54fae2f4e08736ffe4dfde84fd3) | [View Record in Scopus](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=655&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fwww.scopus.com%2Finward%2Frecord.url%3Feid%3D2-s2.0-34247126992%26partnerID%3D10%26rel%3DR3.0.0%26md5%3D54bfe48b2d35321a42a6d7dbff56ab6c&_acct=C000071367&_version=1&_userid=7188513&md5=1554a9a0c5cc670b670835ca9887252e) | Cited By in Scopus (0)Except for endrin and heptachlor,   
der·mal or der·mic  
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American Society for Testing and Materials [Araoud et al., 2007](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T6P-4TJ1HR5-1&_user=7188513&_coverDate=12%2F31%2F2008&_rdoc=1&_fmt=high&_orig=search&_origin=search&_sort=d&_docanchor=&view=c&_searchStrId=1496229297&_rerunOrigin=google&_acct=C000071367&_version=1&_urlVersion=0&_userid=7188513&md5=24e45c32385f1a28d1248de6e272fe75&searchtype=a#bbib2) M. Araoud, W. Douki, A. Rhim, M.F. Najjar and N. Gazzah, Multiresidue analysis of pesticides in fruits and vegetables by gas chromatography–mass spectrometry, *Journal of Environmental Science and Health B* **42** (2007), pp. 179–187. [Full Text via CrossRef](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=3&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fdx.doi.org%2F10.1080%252F03601230601123474&_acct=C000071367&_version=1&_userid=7188513&md5=fb11b54fae2f4e08736ffe4dfde84fd3) | [View Record in Scopus](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=655&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fwww.scopus.com%2Finward%2Frecord.url%3Feid%3D2-s2.0-34247126992%26partnerID%3D10%26rel%3DR3.0.0%26md5%3D54bfe48b2d35321a42a6d7dbff56ab6c&_acct=C000071367&_version=1&_userid=7188513&md5=1554a9a0c5cc670b670835ca9887252e) | Cited By in Scopus (0)the estimated daily intakes of the organochlorines were within the acceptable daily intakes   
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American Society for Testing and Materials [Araoud et al., 2007](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6T6P-4TJ1HR5-1&_user=7188513&_coverDate=12%2F31%2F2008&_rdoc=1&_fmt=high&_orig=search&_origin=search&_sort=d&_docanchor=&view=c&_searchStrId=1496229297&_rerunOrigin=google&_acct=C000071367&_version=1&_urlVersion=0&_userid=7188513&md5=24e45c32385f1a28d1248de6e272fe75&searchtype=a#bbib2) M. Araoud, W. Douki, A. Rhim, M.F. Najjar and N. Gazzah, Multiresidue analysis of pesticides in fruits and vegetables by gas chromatography–mass spectrometry, *Journal of Environmental Science and Health B* **42** (2007), pp. 179–187. [Full Text via CrossRef](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=3&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fdx.doi.org%2F10.1080%252F03601230601123474&_acct=C000071367&_version=1&_userid=7188513&md5=fb11b54fae2f4e08736ffe4dfde84fd3) | [View Record in Scopus](http://www.sciencedirect.com/science?_ob=RedirectURL&_method=outwardLink&_partnerName=655&_origin=article&_zone=art_page&_targetURL=http%3A%2F%2Fwww.scopus.com%2Finward%2Frecord.url%3Feid%3D2-s2.0-34247126992%26partnerID%3D10%26rel%3DR3.0.0%26md5%3D54bfe48b2d35321a42a6d7dbff56ab6c&_acct=C000071367&_version=1&_userid=7188513&md5=1554a9a0c5cc670b670835ca9887252e) | Cited By in Scopus (0) while the levels of residues in the fishes were within the permissible residue limits.