

In the Name of God

The Compassionate, the Merciful



Iranian National Institute for
Oceanography and Atmospheric
Science (INIOAS)

Journal of Oceanography
Spring 2018, Vol. 9/ No. 33

ISSN: 1562-1057



Circulation: 1000

Address: #3, Etemad Zadeh St., Fatemi
Ave., Tehran, IR Iran, 1411813389
Telephone: (098) 2166944873-5
Facsimile: (098) 2166944866
Email: joc@inio.ac.ir
Website: <http://joc.inio.ac.ir>

The Journal of Oceanography received research-scientific license, reference No. 3/10681, dated 18th March 2009, from the Ministry of Science, Research and Technology of IR Iran. Journal of Oceanography is indexed in Islamic World Science Citation Center (ISC) and its Impact Factor (IF) is measured in ISC.

Founder: Iranian National Institute for Oceanography and Atmospheric Science (INIOAS)

Director-in-Chief: Dr. Behrooz Abtahi

Editor-in-Chief: Dr. Ahmad Savari

Executive Manager: Dr. Maryam Hakimelahi

Editorial Board:

Dr. Behrooz Abtahi, Aquatic Ecotoxicology & Ecophysiology, Professor of Shahid Beheshti University

Dr. Abbas Esmaeili Sari, Environment and Fisheries, Professor of Tarbiat Modares University

Dr. Abdolhosein Amini, Sedimentology, Professor of University of Tehran

Dr. Mohammad Reza Banazadeh Mahani, Physical Oceanography, Assistant Professor of Tarbiat Modares University

Dr. Seyed Aminollah Taghavi Motlagh, Aquatic Resources Stock Assessment, Associate Professor of the Ministry of Jihad-e-Agriculture

Dr. Nasser Hadjizadeh Zaker, Civil-Coastal Engineering, Associate Professor of University of Tehran

Dr. Ghasem Heidarinejad, Mechanical Engineering, Professor of Tarbiat Modares University

Dr. Hassan Khaleghi Zavareh, Meteorology, Associate Professor of Shahrekord University

Dr. Hossein Zomorrodian, Geophysics, Professor of University of Tehran

Dr. Ahmad Savari, Oceanography, Professor of Khorramshahr Marine Science & Technology University

Dr. Masoud Sadrinasab, Physical Oceanography, Associate Professor of University of Tehran

Dr. Hamid Alizadeh Ketek Lahijani, Sedimentology, Associate Professor of Iranian National Institute for Oceanography and Atmospheric Science

Dr. Shahrbanoo Oryan, Marine Biology, Professor of Kharazmi University

Dr. Ahmad Motamed, Marine Geology, Professor of University of Tehran

Persian Editor: Dr. Maryam Hakimelahi

English Editor: Fahimeh Foroughi

Layout Designer: Marzieh Mazinani

Review Board Members:

Dr. Homayoun Hosseinzadeh Sahafi, Dr. Abdolali Movahedinia, Dr. Negin Salamat, Dr. Hossein Negarestan, Dr. Mohammad Akbari Nasab, Dr. Cyrus Ershadi, Dr. Shervin Faghihi, Dr. Mohamad hadi Meshkati, Dr. Masoud Sadrinasab, Dr. Ahmad Shanehsaz Zadeh, Dr. Seyed Jafar Sadjadi Parsa, Dr. Jafar Sayareh, Dr. Azadeh Kazemi, Dr. Mehdi Mokhtarzadeh, Dr. Simin Dehghan Madiseh, Dr. Seyed Mohammad bagher Nabavi