

CONTENT

1	Taras Dalyak, Mykola Makoviychuk Stress-strain state of a plate with a crack and a collinear slot in the bending on an elastic foundation	7
2	Roman Musij, Nataliya Melnyk, Oksana Oryshchyn, Valentyn Shynder Mathematical modeling and analysis of the thermomechanical behavior of a bimetallic spherical element during technological processing with an electromagnetic impulse	14
3	Yaroslav Pyanilo, Olga Ivashchenko, Hanna Lyantse, Oleksandr Kalinichenko, Anatoly Lopatiev, Adrian Torskyi Modeling of mass transfer in complex porous environments of cylindrical form	24
4	Tetiana Shopa Vibration of orthotropic doubly curved panel with a set of cutouts of arbitrary configuration taking into account distributed load on the surface of the panel	31
5	Antonii Kulchytskyi, Igor Pirko, Ostap Semotjyuk Informational coupling of photoinduced dichroism in the absorption bands of M_A -centers of coloration $StrCl_2 - Me^+$ crystal	39
6	Valery Plechystyy, Stepan Mudry, Marta Dufanets, Ihor Shtablavyi Interfacial free energy at the liquid-solid phase boundary calculated by the method of capillary fluctuations	46
7	A.S. Pushak, R.V. Kazmirovych Methods of calculating areas of overlapping inks of ellipsoidal raster elements	51
8	Tetiana Shopa Vibration of orthotropic doubly curved panel with a set of inclusions of arbitrary configuration taking into account distributed load on the surface of the panel	56
9	Bohdana Haivas, Adrian Torsky, Veronika Dmytruk Modeling of the drying process of a capillary-porous cylindrical body	65
10	Yadzhak Mykhailo Parallel methods and algorithms for solving problems of digital filtering of data arrays	77
11	Volodymyr Stankevych, Oleg Svetlov, Marko Aheienkov Boundary-integral analysis of a 3-d problem for a body with a periodic array of flexible inclusions	84
12	Yaroslav Pyanylo, Oleg Khudoliy, Anatolii Lopatyev, Oleksandr Kalinichenko Construction of regression dependences using orthogonal transformations and theory of moments	91
13	Adrian Nakonechnyy, Roman Musii, Rostyslav Nakonechnyy Image of broadband reciprocal functions of two variables in the small-wavelength (wavelet) domain	99
14	Mykola Makhorkin, Igor Makhorkin, Andriy Kunynets, Yaroslav Hlynskyi On one method of constructing the cauchy kernel of the singular integral equation for clarify the stress-strain state of the wedge system under anti-plane deformation	112