O`ZBEKISTON RESPUBLIKASI OLIY VA O`RTA MAXSUS TA'LIM VAZIRLIGI

BUXORO DAVLAT UNIVERITETI

MAGISTRATURA BO'LIMI

Qo'lyozma huquqida
UDK-532.539

NAZAROV SHAXZOD ERKINOVICH

"OQUVCHAN DEFORMASIYALANUVCHI MUHITLAR HARAKATI JARAYONIDAGI MOLYAR ALMASHINUVINI MATEMATIK MODELINI ISHLAB CHIQISH"

5A130202 – Amaliy matematika va axborot texnologiyalari

Magistr akademik darajasini olish uchun yozilgan

DISSERTATSIYA

Ilmiy rahbar: **f-m.f.n.dots. A.A. Mirzoyev**

Buxoro – 2019

Dissertatsiya Buxoro davlat universiteti

Fizika-matematika fakulteti

Axborot texnologiyalari kafedrasida bajarilgan

Ilmiy rahbar: _____ (imzo) _____ (Ilmiy darajasi va unvoni, ism-sharifi)

Rasmiy opponent: _____ (imzo) _____ (Ilmiy darajasi va unvoni, ism-sharifi)

Kafedra mudiri: _____ (imzo) _____ (Ilmiy darajasi va unvoni, ism-sharifi)

Magistratura bo‘limi boshlig‘i: _____ (imzo) _____ (Ilmiy darajasi va unvoni, ism-sharifi)

Magistrant: _____ (imzo) _____ (Ilmiy darajasi va unvoni, ism-sharifi)

MAGISTRLIK DISSERTATSIYASI ANNOTATSIYASI

Mavzuning dolzarbligi: Neft va gaz, metallurgiya, qurilish materiallari, turli oziq-ovqat mahsulotlari, kimyo texnologiyalar, hamda boshqa deyarli barcha ishlab chiqarish tarmoqlarini doim tarzda innavatsion rivojlantirib borishi, foydalanilayotgan mashina va apparatlarda kechayotgan fizik jarayonlarni mukammallashtirish zarur taqqazo etadi. Bu jarayonlarga matematik modellashtirish metodlarini qo'llash, ilmiy-texnik ishlanmalarni yaratishning dastlabki bosqichlaridanoq, ularni kantrol qilish, prognoz qilish va korrektirovka qilish imkoniyatini beradi.

Ishning maqsadi va vazifalari: Murakkab reologiyaga ega bo'lgan ikki fazali va uch fazali oquvchan muhitlarning kuchlanma deformatsion holati (KDH) tenglamasi- reologik yangi modellarini nazariy ishlab chiqish.

Tadqiqot ob’yekti va predmeti: Ko'p fazali oquvchan muhitlarning reologik modellari, yopishqoq-elastik-inert deformatsiyalanib oquvchi muhitlar mexanik modelini ishlab chiqish, aniqlash, ya'ni muhitning deformatsiyasi bilan unga ta'sir etuvchi kuchlanish orasidagi munosabat.

Tadqiqot usuli va uslubiyati: Oquvchan ko'p fazali muhitlar harakati jarayonlarida elastiklik (Guk modeli), yopishqoqlik (Nyuton modeli) va yangi inertsion deformatsiya (I.N.Husanov modeli) fundamental xossalari.

Olingan asosiy natijalar: Deformasiyalanish jarayonlariga inert qarshilik ko’rsatadigan muhitlarning umumlashgan bog’lanishlarini nazariy, ya'ni formula va tenglamalar orqali keltirib chiqarish.

Natijalarning ilmiy yangiligi va amaliy ahamiyati: Dissertasiya ishida mexanik modellarning mukammallashtirish, umumlashtirish va yopishqoq-inert deformatsiyalanuvchi muhit oqimlari tadqiqotining nazariy metodlari muammolari ko’rilgan.

Tadbiq etish darajasi va iqtisodiy samaradorligi. Qo`llash sohasi. Xulosa va takliflar: Bugungi shiddatli davrda jahon miqyosida kechayotgan ilg'or texnika va texnoligiyalarga innovatsion yondashuv ortmoqda, shuning uchun ko'p fazali muhitlarda, masalan, neft, beton kabi turli aralashmali suspenziyalarda bir vaqtni

o'zida ham yopishqoqlik, ham deformatsion inertlik xususiyatlarni namoyon bo'lishi, bu muhitlarda oldin kechirgan xolatlarini eslab qolish qobiliyati - relaksatsion, retardatsion va boshqa o'ziga xos jarayonlar bo'lishini , bu esa o'z navbatida ikki fazali muhitlarni mexanik hususiyatlarini o'rganish uchun umumiyroq tushunchalar kiritish va ulardan foydalanishni murakkab reologiyaga asoslangan fanni o'rganishni taqazo etadi.

Ishning hajmi va tuzilishi: Dissertatsiya 3 bob, har bir bob 4 tadan bo`limdan, har bir bob uchun xulosa, umumiy xulosa, foydalanilgan adabiyotlar ro`yxati jami 71 betdan iborat.

Tadqiqotchi: **Sh.E.Nazarov**

Ilmiy rahbar: **f-m.f.n.dots.A.A.Mirzoyev**

ANNOTATION OF MASTER'S DISSERTATION

Relevance of the topic: It is necessary to constantly innovatively develop oil and gas, metallurgy, construction materials, various food products, chemical technology, and almost all other production sectors, and improve the physical processes involved in the machines and apparatuses used. Using these methods is the ability to apply mathematical modeling methods, to initiate, predict and correlate them from the initial stages of scientific and technical development.

Purpose and Objectives of the Work: Theoretical development of rheological new models of the two-phase and triple-phase readings of the force-reactive deformation state (VDF) complex reactivity.

Subject and object of the research: Rheological modes of multicast readable media, development of mechanical model of adhesive-elastic-inert deformed environments, definition of interrelation between deformation of the environment and its affect.

Research Methods and Techniques: The fundamental properties of elasticity (Velocity model), stickiness (Nyuton model) and new inertial deformation (I.H.Husanov model) in processes of moving multicellular media.

The main results obtained are: To generate the generalized bonds of inert resistance to deformation processes by theoretical, ie, formulas and equations.

Implementation rate and cost effectiveness. Application area. Conclusions and Suggestions: In today's severe era, an innovative approach to advanced technology and technology is increasing, so in simultaneous multi-phase media such as oil and concrete, simultaneously exhibit both stickiness and deformation inertiality in various mixed suspensions.

The scope and structure: The dissertation is divided into 3 chapters, each chapter is divided into 2 parts, the summary for each chapter, the total summary, literature, the total of 71 pages.

Researcher: **Sh.E.Nazarov**

Scientific supervisor: **PhD A.AMirzoyev**