Polivinil xloridning ba’zi bir modifikatsiyalarining monomerlarining biologik faolligini PASS (online) dasturida tekshirish

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Annotatsiya: Bugungi kunda jahonda polimerlarning yangi turlarini sintez qilish va ularning biologik faolligini o’rganish muhim ahamiyatga egadir. Ushbu ishimizda PASS(online) dasturi orqali polivinil xloridning bazi bir modifikatsiyalarining monomerlarining biologik faolliklarini o’rganish natijalari keltirilgan.

Kalit so’zlar: P_a qiymat, P_i qiymat, Pass (online), biologik faollik, ingibitor, modifikatsiya

Testing the biological activity of monomers of some modifications of polyvinyl chloride in PASS (online)

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Abstract: In today's world, it is important to synthesize new types of polymers and study their biological activity. In this study, the results of the study of the biological activity of monomers of some modifications of polyvinyl chloride using the program PASS (online) are presented.

Keywords: Pa value, Pi value, Pass (online), biological activity, inhibitor, modification

Kirish

PASS (online) dasturi moddalarning strukturasiga asoslangan holda uning biologic faolligini o’rganishga asoslangan dastur. Biologik faollik deganda biz, moddaning o’zini nomoyon qiladigan ichki xususiyati bo’lib, biologik ob’ektlar bilan o’zaro ta’sirlasha olish qobilyatini tushunamiz. Ushbu dastur modda uchun ma’lum P_a va P_i qiymatlar qabul qilib, ushbu qiymatlar faoliyat ehtimollikni bildiradi. Ya’ni P_a - farmakologik faol, P_i – farmakologik faol emas. Agar P_a >0.71 bo’lsa molekula ushbu faollikni ko’rsatishi mumkin [1-2].

Olingan natijalar tahlili

Online dastur orqali PVX ning (I-III) modifikatsiyalaring biologik faolliklari natijalari olindi va ular turli biologik faollikka ega ekanligi aniqlandi. Ba'zi bir biologik faolliklarning natijalari 1-jadvalda keltirilgan.

1-jadval

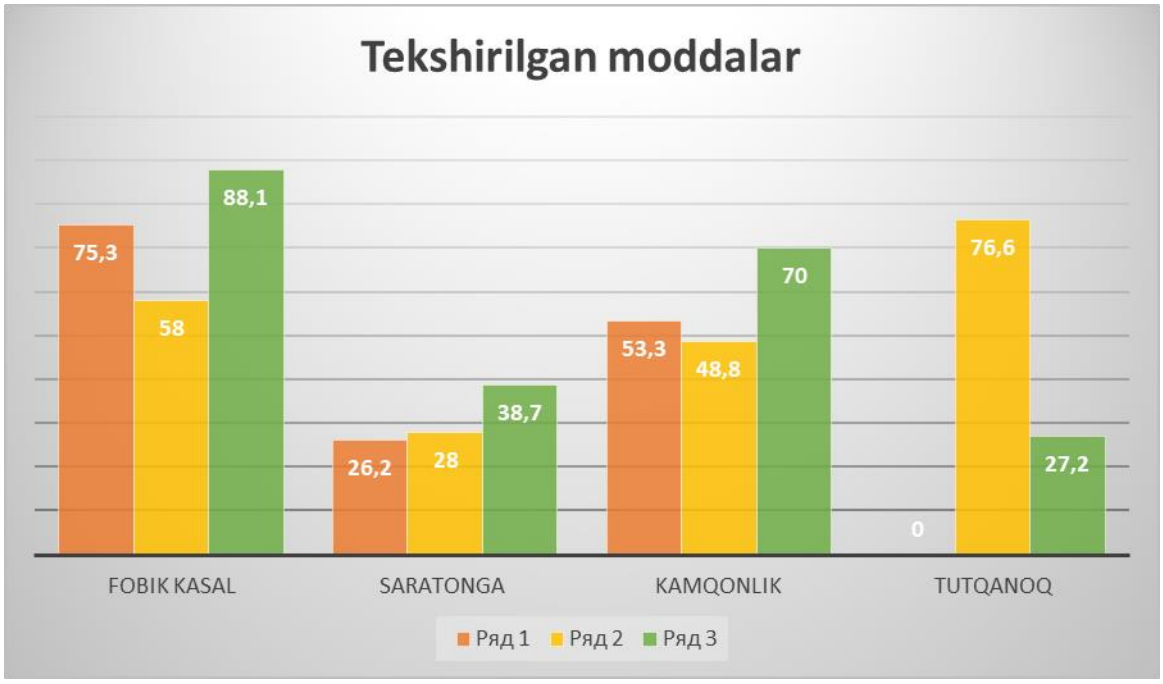
Polivinil xlorid asosida olingan ionit manomerlarining ayrim kasalliklarga qarshi faolligini PASS(online) dasturida tekshirish natijalari (%-da)

Faollik	O'rganilgan birikmalar		
	I	II	III
Tutqanoqqa qarshi dori	-	76.6	27.2
Fobik kasalliklarni davolashda	75.3	58	88.1
Saraton bilan bog'liq kasalliklarga qarshi	26.2	28	38.7
Kamqonlikka qarshi	53.3	48.8	70
Umumiy behushlik	46.4	22.8	26.4
Carminative (oshqozon ichak sohasida gaz hosil bo'lishini oldini olish	41.2	23.8	26.7
Antineoplastic (qalqonsimon bez saratonni)	14.9	-	21.7
antibiotik	72.6	64.9	13.5
Adenoviruslarga qarshi	22.6	44.9	49.6
O'tkir nevrologik kasalliklarga qarshi	-	50.8	37.8
anticataract	25.9	35.3	39.2
Kalsiy regulyatori		69.9	40.9
Soch to'kilishi kasalligiga qarshi	43	36.1	57.6

Modifikatsiyalar sifatida quyidagilar olindi: I – PVX ni PEPA ishtirokida modifikatsiyasidan olingan PPE-1 ioniti, II – PPE-1 ni fosfit kislota ishtirokida modifikatsiyasidan olingan PPE-1-P poliamfoliti, III – PPE-1 ni monoxlorsirka kislota ishtirokida modifikatsiyasidan olingan PPE-1-M poliamfolit

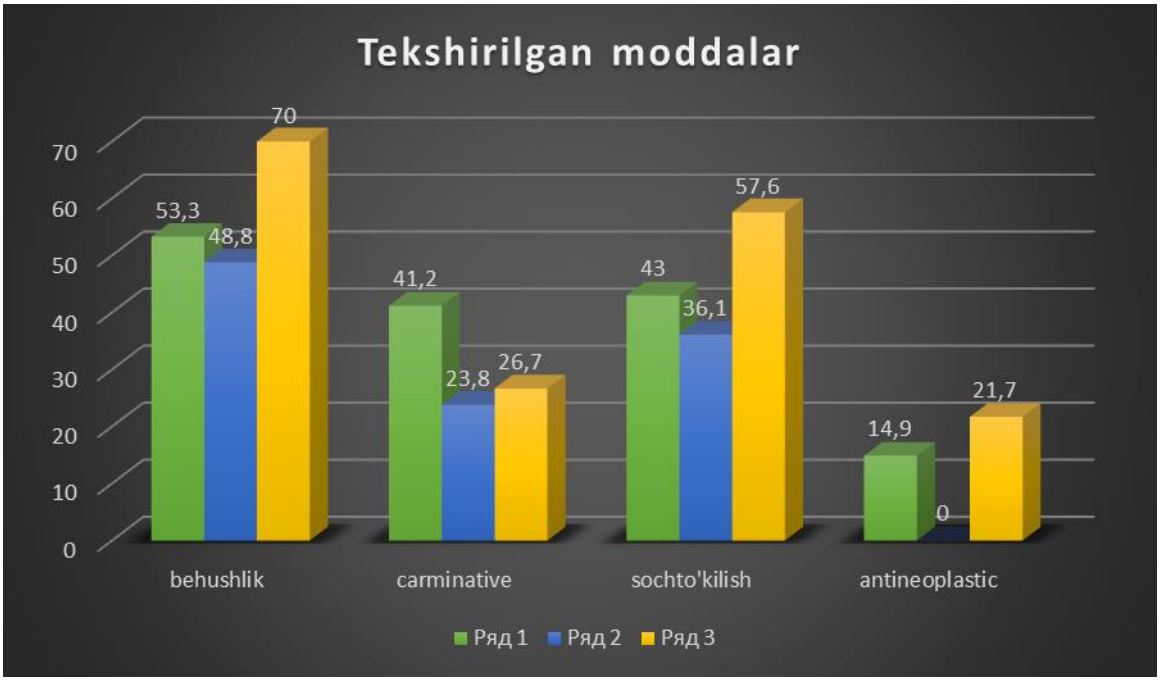
1-Diagrammada. PASS (online) dasturi ma'lumotlariga ko'ra, PPE-1 ga fosfit kislotaning modifikatsiyalanishi undagi fobik kasalliklarga bo'lgan faollikni kamaytiradi, ammo monoxlor sirka kislota ishtirokida modifikatsiyalanish undagi fobik kasalliklarga qarshi biologik faollikni oshiradi. Fobik kasalliklarga qarshi eng biologik faol modda

PPE-1-M ekan. Xuddi shu tartibda kamqonlikka v ava saratonga qarshi faollik ham PPE-1-M da yuqoriligi diagrammada ko'rinib turibdi. Shu bilan bir qatorda tutqanoqqa qarshi biologik faollik PPE-1-M ga qaraganda PPE-1-P da ancha yuqori ekanligini ko'rishimiz mumkin.



1-rasm. Polivinil xloridning ba’zi bir modifikatsiyalarining monomerlarining PASS (online) dasturida hisoblangan ayrim biologik faolliklari

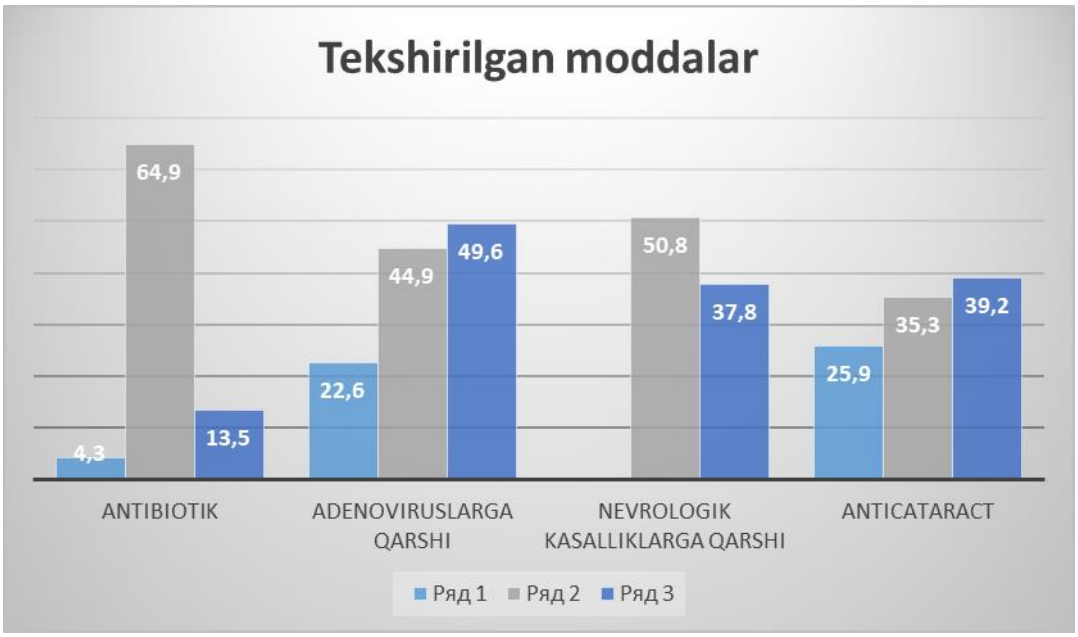
2-diagrammada shuni ko’rish mumkin, behushlik, soch to’kilishiga qarshi va antineoplastic(qalqonsimonbez saratoni) kabi kasalliklarda PPE-1-M faol bo’lib, carminative kasallikda esa faolligi PPE-1 ga qaraganda pastroq. Shuningdek PPE-1-P ni biz antineoplastiklik (qalqonsimon bez saratoni) kasallikka faolligi umuman yo’qligini diagrammada ko’rishimiz mumkin.



2-rasm. Polivinil xloridning ba’zi bir modifikatsiyalarining monomerlarining PASS (online) dasturida hisoblangan ayrim biologik faolliklari

3-diagrammada PPE-1- M ning adenoviruslarga qarshi va anticataract biologic faolligi qolgan moddalarga nisbatan yaxshi ekanligini, shuningdek PPE-1 –P ning

antibiotik va nevrologik kasalliklarga qarshi biologik faolligi yuqoriligini ko'rishimiz mumkin.



3-rasm. Polivinil xloridning ba'zi bir modifikatsiyalarining monomerlarining PASS (online) dasturida hisoblangan ayrim biologik faolliklari

Xulosa

PASS(online) dasturi orqali biz PVX ni turli modifikatsiyalarini biologik faolliklarini o'rganganimiz shuni ko'rsatadiki, PPE-1-M ni fobik kasalliklarga qarshi, behushlik va kamqonlikka qarshi yuqori biologik faol ekanligini ko'rishimiz mumkin. Sababi $P_a > 0, 71$ bo'lgandagi holatda molekula ushbu faollikni ko'rsatish ehtimolligi yuqori. PASS (online) dasturi orqali biz ko'p sonli birikmalarni bir vaqtda biologik faolliklarini o'rganishimiz mumkin.

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