YOQILG‘I BRIKETLARNI TAYYORLASHDA QO‘LLANILADIGAN BOG‘LOVCHI MAHSULOTLARNING RETSEPTURASI VA YUMSHASH HARORATINING O‘ZGARISHI

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Annotatsiya: Hozirgi kunda arzon va sifatli yonilg‘i briketlarga bo‘lgan ehtiyoj ortib borayotganligi sababli, ishlatilgan qizilmiya ildizi va kimyo sanoati qoldiqlari asosida, issiq va sovuq kunlarga bardoshli, import o‘rnini bosuvchi, eksportbop va atrof muhitga ta’sir qilmaydigan briketlarni ishlab chiqish va ishlab chiqarishga bog‘lash muhim ahamiyatga ega. Sirt faolligini o‘rganish sirt qavat tarkibi, uning xossalari, tuzilishi, sirtda ta’sir etuvchi kuchlar, sirt energiyasi, sirtda moddaning yig’ilishi (adsorbsiya), ho‘llanish, flotatsiya, kapillyar bosim, sirtlarda kimyoviy potensial va bug bosimining o’zgarishi, fazalar qoidasining dispers sistemalar uchun qullanilishi kabi jarayonlar o‘z ichiga oladi.

Kalit so‘zlar: Qizilmiya, korxona, qattiq sirt, disperslik darajasi, neftshlam, Qizilmiya ildizi, Utilizatsiya, sirt taranglik, sirt yuzasi, komponent imyoviy potensiali, komponentning mol sonlari, elektr potensial, zaryad miqdori

Аннотация: В настоящее время, в связи с ростом потребности в недорогих и качественных топливных брикетах, актуальным становится производство брикетов на основе использованных корней солодки и отходов химической промышленности. Такие брикеты обладают устойчивостью к жаре и холоду, могут заменить импортные продукты, имеют экспортный потенциал и не оказывают негативного воздействия на окружающую среду. Изучение поверхностной активности включает исследование состава поверхностного слоя, его свойств, структуры, действующих на поверхности сил, поверхностной энергии, адсорбции веществ на поверхности, смачивания, флотации, капиллярного давления, изменения химического потенциала на поверхности и давления пара, а также применение правила фаз к дисперсным системам.

Ключевые слова: Солодка, предприятие, твердая поверхность, степень дисперсности, нефтешлам, корень солодки, утилизация, поверхностное натяжение, поверхность, химический потенциал компонентов, количество вещества компонентов, электрический потенциал, величина заряда.

Annotation: due to the growing need for cheap and high-quality fuel briquettes, it is important to link to the development and production of briquettes based on used licorice root and chemical industry residues, resistant to hot and cold days, import substitute, exportbop and non-environmental impact. The study of surface activity

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includes processes such as surface floor composition, its properties, structure, surface forces acting on the surface, surface energy, accumulation of matter on the surface (adsorption), wetting, flotation, capillary pressure, chemical potential on the surfaces and changes in vapor pressure, subsidence of the phase rule for dispersive systems.

Keywords: licorice, enterprise, solid surface, dispersion level, oil shale, licorice root, disposal, surface tension, Surface Surface Surface, component imitative potential, component moles, electrical potential, charge quantity

Kirish

Yuqoridagi boblarni tahliliga ko‘ra, yoqilg‘i briketlarni tayyorlash uchun yuqori adgezion xususiyatga ega bo‘lgan bog‘lovchi mahsulotlarni olish lozim. Bizning ishimizda bog‘lovchi mahsulotni olish uchun ikkita mahalliy qoldiq yoki ikkilamchi xomashyodan va quyuqlashtiruvchi moddalardan foydalanildi.

Mahalliy qoldiq sifatida: birinchi- neftni qayta ishlash zavodlarida (ETQ-elektr tuzsizlantiruvchi qurilmasida, suvni tozalash inshootlarida, issiqlik almashinuvchi apparatlarini tozalashda, kollonalardagi tarelkalarni tozalashda, neftni saqlash omborlarida) hosil bo‘ladigan neft shlami; ikkinchisi- yog‘-moy sanoatida (paxta soapstoki moyli kislotalarni distillash natijasida) hosil bo‘lgan qatron [62;].

Ikkinchi bobning 2.2-paragrafida keltirilgan bog‘lovchi mahsulotni olish metodikasiga tayangan holda biz tomondan bog‘lovchi mahsulot retsepturasini ishlab chiqish uchun asosiy xomashyo neft shlami va gossipol qatroni qoldiqlaridan foydalanilgan [63; 874-880 b., 64; 201-203 b.].

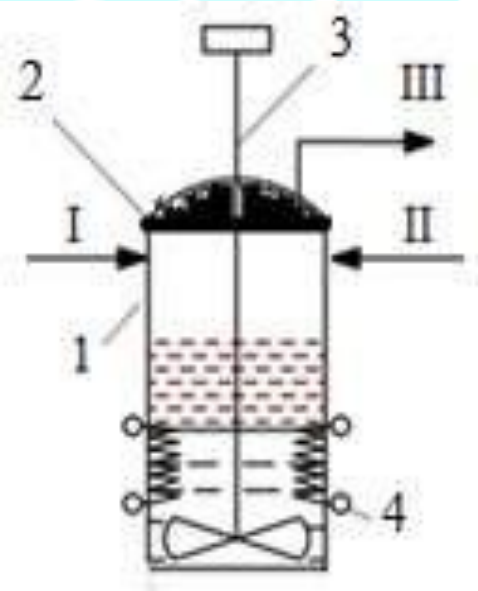
Ishlab chiqilgan tajriba qurilmasi yordamida neft shlami va gossipol qatroni asosida bir jinsli mahsulot namunalari olindi (3.1-rasm) [65; 205-207 b.].

Yoqilg‘i briketni tayyorlash uchun tarkibi 2 xil bo‘lgan bog‘lovchi mahsulot olish retsepturasi quyidagicha:

1) Birinchi bog‘lovchi mahsulotning tarkibi neft shlami, gossipol qatroni va so‘ndirilmagan ohakdan iborat.
2) Ikinchi bog‘lovchi mahsulotning tarkibi neft shlami, gossipol qatroni va ko‘mir kukunidan iborat.

Har bir bog‘lovchi mahsulotning sifati yumshash haroratiga va adgezion xususiyatiga qaratilgan.

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3.1-rasm. Bog‘lovchi mahsulot olish tajriba qurilmasi

1-aralashtiruvchi reaktor; 2-reaktor qopqog‘i; 3-aralashtirgich; 4-elektr qizdirgich.

I-so‘ndirilmagan ohak; II-ko‘mir kukuni; III-yengil komponentlar

Yumshash harorati tadqiq qilish uchun har bir bog‘lovchi mahsulotdan 5 tadan namunalar olindi (3.1- va 3.2-jadvallar).

3.1-jadval

Birinchi bog‘lovchi mahsulot namunalarining tarkibidagi moddalar miqdori

Namunalar	100% massa miqdorida tayyor bog‘lovchi mahsulotni olish uchun tanlangan moddalar miqdori, % massa		
	Gossipol qatroni	Neft shlami	So‘ndirilmagan ohak
*BM-1(**SO)	40	59,5	0,5
BM-2(SO)	40	59	1
BM-3(SO)	40	58,5	1,5
BM-4(SO)	40	58	2
BM-5(SO)	40	57	3

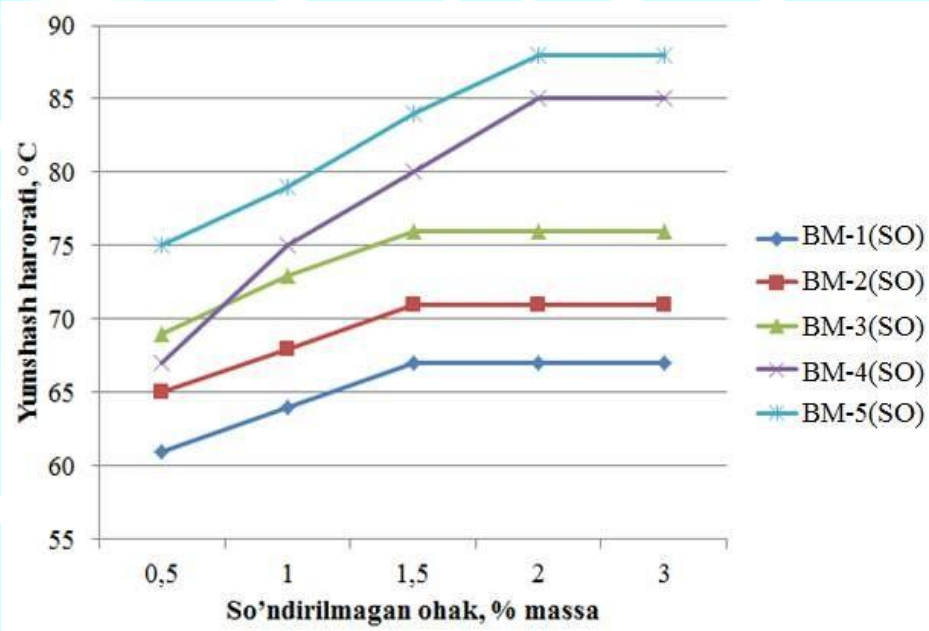
Izoh: *BM – bog‘lovchi mahsulot; **SO – so‘ndirilmagan ohak.

Birinchi bog‘lovchi mahsulotning har bir namunasi “Xalqa va Shar” usuli yordamida yumshash harorati aniqlandi va olingan natijalarning ko‘rsatkichlari 3.2-rasmda grafik ko‘rinishda keltirildi.

BM-3(SO) namunasidan boshlab, olingan yumshash haroratining ko‘rsatkichi standart talablariga muvofiqligi aniqlangan. Bog‘lovchi mahsulotga

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1,5% massada va undan yuqori so‘ndirilmagan ohak qo‘shishda ham yumshash haroratining o‘zgarishi kuzatilgan.



3.2-rasm. Birinchi bog‘lovchi mahsulot namunalarining yumshash harorati

Kompozisiya tarkibiga kiruvchi komponentlarning adegion kuchiga mos holda bog‘lovchilik xususiyatini namayon etadi va har bir komponentning alohida xossalarini ta'sirini ifodalaydi. BM-1 dan BM-5 gacha borish qatorida noorganik komponentning miqdori ortishi uning adgeziyasi nolga tengligi hisobiga boshqa xossalarga ham ta'sirini ko‘rsatadi.

3.2-jadval

Ikkinchi bog‘lovchi mahsulot namunalarining tarkibidagi moddalar miqdori

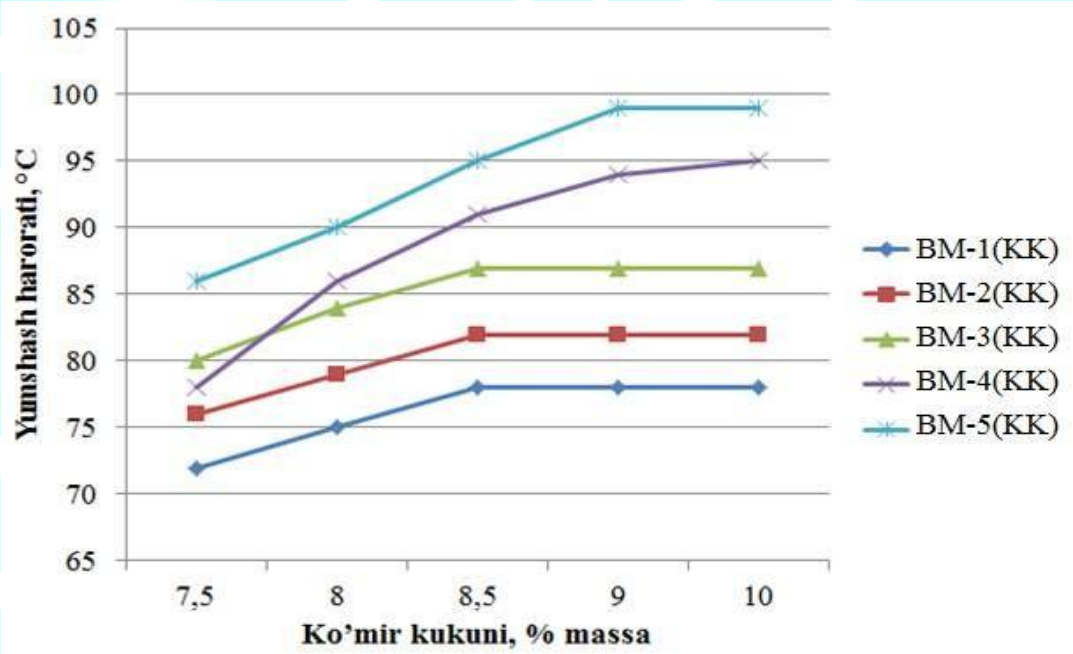
Namunalar	100% massa miqdorida tayyor bog‘lovchi mahsulotni olish uchun tanlangan moddalar miqdori, % massa			Adgeziyasi quruq holatda N/sm^2
	Gossipol qatroni	Neft shlami	Ko‘mir kukuni	
BM-1(*KK)	35	57,5	7,5	288
BM-2(KK)	35	57	8	314
BM-3(KK)	35	56,5	8,5	320
BM-4(KK)	35	56	9	217
BM-5(KK)	35	55	10	205

Izoh: *KK – ko‘mir kukuni.

Ikkinchi bog‘lovchi mahsulotning har bir namunasi “Halqa va Shar” usuli

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yordamida yumshash harorati aniqlandi va olingan natijalarning ko‘rsatkichlari 3.3-rasmda grafik ko‘rinishda keltirildi.



3.3-rasm. Ikkinchi bog‘lovchi mahsulot namunalarining yumshash harorati

Har bir namunaning yumshash harorati ko‘rsatkichlari GOST standart talablariga muvofiq bo‘lishi mumkin, ammo bog‘lovchining adgezion xususiyati yomonlashib borishi mumkin.

Xulosa qilishdan oldin namunalar asosida yoqilg‘i briketlarni olgandan so‘ng ularni yondirib kul hosil bo‘lishini aniqlash lozim. Chunki tayyor yoqilg‘i briketni sanoat va xo‘jalik sharoitda yondirganda kul miqdori ortib ketsa nafaqat isrofgarchilik balki inson salomatligiga ta’sir qilishi mumkin.

Tayyor yoqilg‘i briketlarni olishdan oldin qizilmiya ildizini talab darajasida quritish va uning fraksiya o‘lchamlarini tanlash kerak. Shu uchun keyingi paragrafda qizilmiya ildizini optimal quritish va o‘lchamlarini tanlash tadqiqoti batafsil yoritilgan.

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