

Merkezi Araştırma Laboratuvarı Uygulama ve Araştırma Merkezi - BARUM HAZİRAN BÜLTENİ

İŞ BİRLİKLERİMİZ



Dumlupınar Üniversitesi İLTEM Merkezini ziyaret ettik.



İstikamet Döküm firması merkezimizi ziyaret etti.



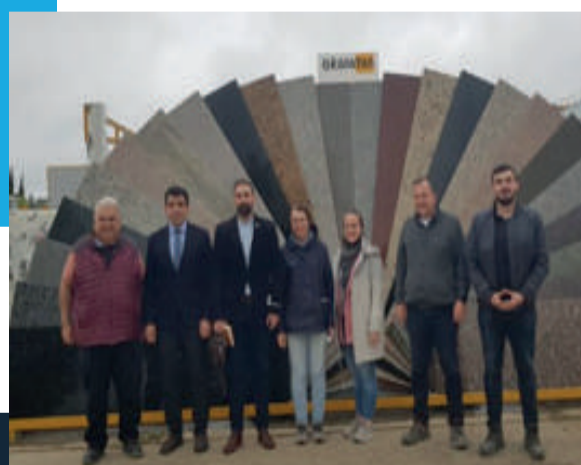
Mey Alkollü İçkiler firması merkezimizi ziyaret etti.



Silver Madencilik San. ve Tic. A.Ş. firması merkezimizi ziyaret etti.



Eskişehir'den ETİ GIDA firması merkezimizi ziyaret etti.



Üniversitemiz birimleri GRANITAŞ firmasını ziyaret etti.

ETKİNLİKLER



Üniversitemizin 1. Bilim Şenliğinde açılan BARUM standını Bilecik Sanayi ve Teknoloji İl Müdürü Abdullah Ay ziyaret etmiştir.

EĞİTİMLER



Merkezimizde uzman ekip ve lisans üstü öğrencilere ELEMENTEL analiz cihazı kullanımı, SERTLİK cihazı kullanımı, ileri düzey XRF, GC, GC-MS ve HPLC eğitimi verilmiştir.

HİZMET VERDİĞİMİZ FİRMALAR

- Mey Alkollü İçkiler A.Ş.
- Durden Plastik A.Ş.
- Porland Porselen San. Tic. A. Ş.
- İstikamet Döküm A.Ş.
- Metko Huttenes-Albertus Kimya San. ve Tic. A.Ş.
- Silver Madencilik San. ve Tic. A.Ş.
- Contrion İlaç San. ve Tic. A.Ş.
- Ettom Teknoloji San. ve Tic. A.Ş.
- Güneş Eğitim Tic. Ltd. Şti.
- Peha Lab Kimya Elektronik
- SYNPET Teknoloji Geliştirme A.Ş.

HİZMET VERDİĞİMİZ ÜNİVERSİTELER

- Yalova Üniversitesi
- Sakarya Üniversitesi
- Hitit Üniversitesi
- Fırat Üniversitesi

BARUM Merkez Müdürü Doç. Dr. Rafig GURBANOV ve arkadaşlarının merkezimizin desteğiyle yapmış oldukları makale için tebrik ederiz.

ORIGINAL PAPER

Tapioca starch and skim milk support probiotic efficacy of *Lactiplantibacillus plantarum* post-fermentation medium against pathogens and cancer cells

Hazret Karadağ¹, Sivrem Turker², Sevilgen Karayazıcı³, Rafig Gurbanov^{4*}

Received: 20 November 2021 / Revised: 21 April 2022 / Accepted: 21 April 2022 / Published online: 11 May 2022
© The Author(s), under exclusive licence to Springer Nature B.V. 2022

Abstract
The production of functional foods containing probiotic ingredients is an area of particular interest and a very promising market with the potential to dominate the food industry. This study aims to explore the potential of starch-based probiotic sprays and skim milk, as low-cost and easily accessible food sources and as natural and "clean label" food ingredients on the probiotic activities of *Lactiplantibacillus plantarum* (Strain) *fermentiflavus* strains. The results show that concentrate use of the modified tapioca starch and skim milk possesses the antibacterial and anti-cancer properties of *L. plantarum* post-fermentation media. Further, the functional properties of probiotic products can be regulated by growth substrates.

BARUM Merkez Müdür Yrd. Doç. Dr. Şenay BALBAY'ın merkezimizin desteğiyle yapmış olduğu makale için tebrik ederiz.

ORIGINAL PAPER

New Method for Producing Carbon Sphere from Waste Tyre (NEWSWT)

Seray Balbay^{1,2}, Çeşlihan Açıkgöz³

Received: 9 September 2021 / Accepted: 19 February 2022
© The Author(s), under exclusive licence to Springer Nature B.V. 2022

Abstract
In this study, it was aimed to develop a new method for the production of clustered and hierarchical carbon spheres from waste tyres, which can be used in the world. A clustered and hierarchical carbon sphere was produced by applying chemical degradation and washing processes to waste tyre scraps, respectively. Waste tyre scraps was obtained by degreasing the waste tyre scraps after waste tyre scraps, washed in H₂SO₄ and CH₃COOH-NaOH solution were mixed for 15 min in room conditions. Different pressure (1–2.5 MPa), time (2–3 h) and temperature (200–300–400 °C) were chosen as parameters for the production of carbon spheres from 20 g of waste tyre scraps in the successive process. The produced carbon spheres were characterized by FTIR, SEM, EDS, BET, XRD, TEM, Raman analyses. It has been determined that the most suitable conditions for the production of clustered and hierarchical carbon spheres from waste tyre were for 3 h at 300 °C under 2 MPa. The surface area of the clustered and hierarchical carbon spheres obtained under these conditions was 259.5 m²/g. As a result, a simple and cost-effective new method was introduced using waste tyre as the carbon source for the production of carbon spheres.

UĞUR

"Tazeliğin Güvencesi"

Uğur Soğutma A.Ş.'nin merkezimize desteklerinden dolayı Uğur Soğutma A.Ş. ailesine teşekkür ederiz.