

Profile

NAME	NOOR NAJMI BINTI BONNIA
GRANT	14 completed 7 active
SUPERVISION	Graduated = 11 Active = 5 PhD = 4 Master
AREA OF RESEARCH	NANOCOMPOSITE, HYBRID COMPOSITE, TOUGHENED POLYMER POLYMERIC MATERIALS, MORPHOLOGICAL STUDY MATERIALS SCIENCE
CITATION	Google Scholar Citation = 1584, H-Index = 14 Scopus Citation = 530, H-index = 10 Publons Citation = 875 H Index = 10
QUALIFICATION	PhD : MATERIALS SCIENCE , Universiti Kebangsaan Malaysia



noornajmi@uitm.edu.my



UNIVERSITI
TEKNOLOGI
MARA

ACHIEVEMENT

98

QS Asia University
Rankings 2024

587

=587
QS World University
Rankings 2025

18

Subjects ranked in the QS
World University Rankings
by Subject 2024

599

=599th globally for QS
World University Rankings:
Sustainability 2024

Graduates
1,081,935

Students
170,850

Staff
19,119

Programmes
518

Campuses
34

Postgraduate Students
10,347

Professors
204

* | Source: University Transformation Division

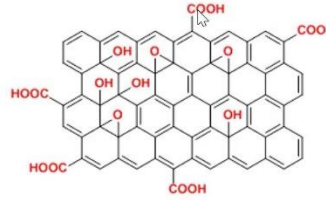
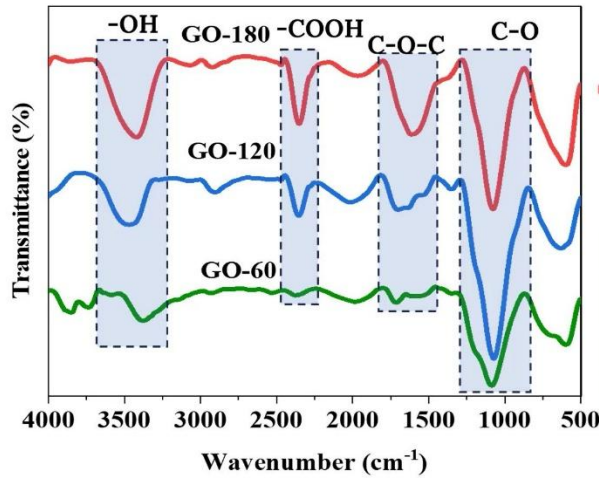
FINDING



Fakulti Sains Gunaan

Unleash
Sh

1. Oxidation Degree & Structural Analysis



The illustration adds a graph indicating successful oxidation and exfoliation of carbon

Reference (cm ⁻¹)	GO-60	GO-120	GO-180	
3500-400	3392	3407	3395	C-O (Epoxy)
1700-1800	1706	1705	1700	C=O (Carboxyl)
1430-1630	1615	1605	-	C=C
1000-1200	1108	1110	1512	C-O (Epoxy)

Zoom Toplantı


Uğur Köklü Şeker Morkavuk Assoc. Prof. Dr. Noor Najmi Şakir yazman mert.karaman emre ciftci

Şakir yazman mert.karaman emre ciftci Giriş yapın

UNIVERSITI TEKNOLOGI MARA **Fakulti Sains Gunaan** *Unleashing Potentials Shaping the Future*

Optimization of Reaction Time in Modified Hummers Method for Synthesis of Graphene Oxide from Waste Tire: A Sustainable Approach

Speaker

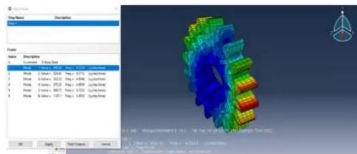


Noor Najmi Bonnia (Assoc. Prof. Ts. Dr.)
 Head of Department
 School of Physics and Materials Studies
 Faculty of Applied Sciences
 Universiti Teknologi MARA (UiTM) Shah Alam
noornajmi@uitm.edu.my

<https://uitm.edu.my/index.php/en/>

5. Modal Analysis of the Topology Optimized Gear

- Finite Element Modal Analysis of the Gear for Resonance Investigation



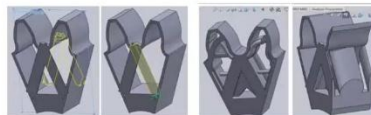
4. Dynamic Effects Consideration in Design

- Investigating the Dynamic Behavior of Gears for Vibration Control & Condition Monitoring
- Meshing Stiffness Estimation by Considering Various Optimal Designs for the Gear Geometry



3. Simplification of the Geometry Resulting from Topology Optimization

- Design Improvement to Enhance Manufacturability and Reduce Costs



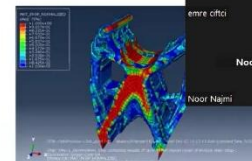
1. Define the Geometry and Properties

- Extracting the CAD file of the gear number of teeth, module, and type
- Critical areas identification for the gear

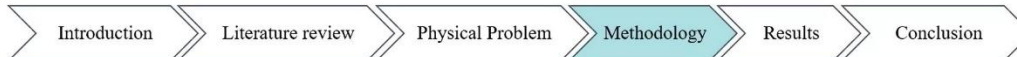


2. Topology Optimization

- Define the Design Space for the Topology Optimization
- Define the Topology Optimization Parameters



8



THE UTILIZATION OF 3DP IN MISWAK HOLDER FABRICATION.

**Sharuddin BinMohd Dahuri¹, Nor Hakimah Binti Ahmad Subri²,
Aliff Bin AB Tahir³, Abu Harfiz Bin Hassan⁴.**

Presented By : Sharuddin Bin Mohd Dahuri.

Dr. Uğur Köklü
Dr. Mehmet ŞAHBAZ
Marjo Franc
ICMSM
ICMSM
sharuddin mohd...
sharuddin mohd dahuri
Dr.Ömer Şengül

Medya Oynatici

Dr. Mehmet ŞAHBAZ

Dr. Uğur Köklü

sharuddin mohd dahuri

Marjo Franc

Dr.Ömer Şengül

ICMSM

sharuddin mohd...

Şakir yazman

Project Activities for AW-4032 Forging Parts

```

    graph TD
      A[Model and Mold Design Studies] --> B[Simulation Studies]
      B --> C[Mold Manufacturing]
      C --> D[Sample Production]
      D --> E[T6 Heat Treatment Studies]
      E --> F[Laboratory Inspection]
      F --> G[Qualit Control Studies]
      B --> H[Different Temperature]
      B --> I[Fold/Lap]
      B --> J[Press Force]
  
```

Uğur Köklü
Uğur Köklü
Sezer Morkarak
Ö.Batuhan ÖZKAN...
Ö.Batuhan ÖZKAN- KANCA Forging
Şakir yazman
Şakir yazman
mert.karaman
mert.karaman
emre ciftci
emre ciftci

DETERMINATION OF OPTIMUM T6 HEAT TREATMENT PARAMETERS FOR HOT FORGED AW-4032 ALUMINUM ALLOY PARTS

15.11.2024

Mert KARAMAN, Gizem KOCAMAN, Alper KOCAKURT, Ö. Batuhan ÖZKAN,
Funda Gül KOÇ, Ersoy ERİŞİR



POTENTIAL COMMERCIALIZATION

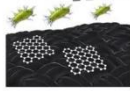


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Unleashi
Sha

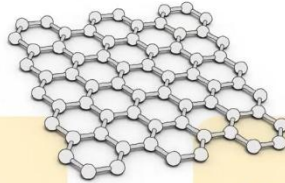


Graphene oxide
having excellent
antibacterial
properties



Healthcare
production

Graphene Oxide



Graphene
membrane
water filter



Further reduction to
reduced graphene oxide
could enhance its electrical
properties



Electronics

Water Filter

ICMSM2024-Hossein Soroush.pptx - PowerPoint (Product Activation Failed) Hossein Soroush

File Home Insert Design Transitions Animations Slide Show Review View Help EndNote 21 Acrobat Tell me what you want to do

Clipboard Copy Paste Format Painter New Slide Section Slides Font Paragraph Drawing Editing

ICMSM 2024 3rd International Conference on Materials Science and Manufacturing November 15-16, 2024-Turkey

Sharif University of Technology

Title:

Topology Optimization of Gears for Additive Manufacturing Incorporating Static and Dynamic Performance Considerations

Sepehr Pourroki Salehan, Sharif University of Technology
Hossein Soroush, Sharif University of Technology
Saeed Khodaygan, Associate Professor, Sharif University of Technology

Slide 1 of 16 English (United States)

time, the PANI/fly ash composite was collected by filtration and thoroughly washed with distilled water to remove any residual acid and unreacted monomers. The washed composite was then dried in an oven at 60°C until a constant weight was achieved.

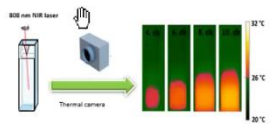
and Wash

CHARACTERIZATION AND RESULTS

Photothermal Analyses

Photothermal measurement

808 nm NIR laser Thermal camera



Temperature (°C)

Time (s)

50 µg/mL
100 µg/mL
250 µg/mL
500 µg/mL
1000 µg/mL

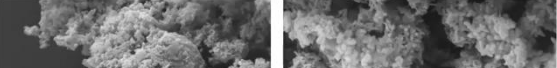
Antibacterial Activity

Investigation of antibacterial activity → Spread plate technique
Bacteria counting → Colony forming unit (CFU, %)

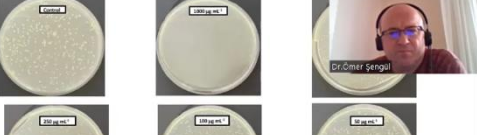
100 µL bacteria
900 µL suspension
1000 µg/mL 500 µg/mL 250 µg/mL 100 µg/mL 50 µg/mL

Bacteria counting Incubation 37 °C, 24 h Suspension spreading

FE-SEM Analysis



NIR(-)



ICMSM 2024 5th International Conference on Materials Science and Manufacturing November 15-16, 2024-Turkey

PHOTOTHERMAL ANTIBACTERIAL ACTIVITY OF PANI/FLY ASH COMPOSITE

Duygu YANARDAĞ KOLA, Abdurrahman MUSTAFA, Ahmed ALSARORI, Gülcihan GÜZEL KAYA
Department Of Chemical Engineering, Engineering Faculty, Konya Technical University, TURKEY
e-mail: dyanardag@ktun.edu.tr

INTRODUCTION

Polyaniline (PANI) is a versatile, conductive polymer valued for its hydrophilic nature, biocompatibility, environmental stability, and high electrical conduct properties make PANI attractive for various biomedical applications, particularly in antimicrobial contexts [2]. In this study, we synthesized a PANI/fly ash composite through chemical oxidative polymerization and investigated its photothermal antibacterial efficacy against *Staphylococcus aureus* (*S. aureus*). The composite's characteristics were analyzed through FTIR and FE-SEM, aiming to assess its potential for sustainable and effective disinfection applications.

MATERIALS AND METHOD

1.6 g of fly ash and 2 g of aniline were dispersed in 100 mL of 1 M HCl. The mixture was stirred thoroughly to ensure homogeneous dispersion of fly ash within the aniline solution. A separate solution of the oxidizing agent

Fly Ash HCl APS

Otomatik Kaydet SUN... • bu bilgisayar konu... Emre ÇİFTÇİ

Dosya Giriş Ekle Çiz Tasarım Geçişler Animasyon Slayt Göz Kaydet Gözden Görünür Yardım Acrobat

Yapıştır Slaytlar Yazı Tipi Paragraf Çizim Düzenleme Create a PDF and Share link Adobe Acrobat Dikte Ses Ekleniler Tasarımcı

7 8 9 10

BULGULAR

#	Kullanılan Materyel	24 °C Shore D (HD)	200 °C Shore D (HD)	Maksimum Kırılma Basıncı (N)	Yüzey Kalitesi
1	%100 Anycubic Standart Beyaz Reçine	0,66	0,58	204	Orta
2	%98 Anycubic Standart Beyaz Reçine %1 Silikon Dioksit Nano Tozu %1 SC80 25 Mikron Grafit Tozu	0,7	0,64	217	Orta
3	%97 Anycubic Standart Beyaz Reçine %1 Silikon Dioksit Nano Tozu %2 SC80 25 Mikron Grafit Tozu	0,755	0,693	263	Yüksek
4	%96 Anycubic Standart Beyaz Reçine %2 Silikon Dioksit Nano Tozu %2 SC80 25 Mikron Grafit Tozu	0,83	0,722	238	Düşük
	Ortalama Standart Sapma	0,07452	0,00147	14,937483	

Not eklemek için tıklayın

BULGULAR

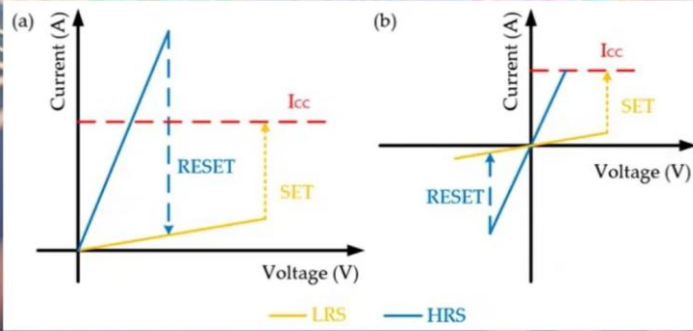
#	Kullanılan Materyel	24 °C Shore D (HD)	200 °C Shore D (HD)	Maksimum Kırılma Basıncı (N)	Yüzey Kalitesi
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3	%97 Anycubic Standart Beyaz Reçine %1 Silikon Dioksit Nano Tozu %2 SC80 25 Mikron Grafit Tozu	0,755	0,693	263	Yüksek
4	%96 Anycubic Standart Beyaz Reçine %2 Silikon Dioksit Nano Tozu %2 SC80 25 Mikron Grafit Tozu	0,83	0,722	238	Düşük
	Ortalama Standart Sapma	0,07452	0,00147	14,937483	

**3 BOYUTLU STEROTİGRAFI YAZICILARDA KULLANILAN
REÇİKENİN KATKI MALZEMELERİ İLE GELİŞTİRİLEREK
DÜŞÜK BASINÇLI PLASTİK ENJEKSİYON CİHAZLARINDA
PROTOTİP ÜRÜN KALIBI ÜRETİMİNE UYGUN
DAYANIMDA KULLANILABİLECEK BİR REÇİKENİN
ARAŞTIRILMASI VE UYGULANMASI**

**EMRE ÇİFTÇİ
E. RENÇ ELDENER**

Types of ReRAM Based on Switching Modes

- **Bipolar ReRAM:** Requires both positive and negative voltages for switching, typically offering better endurance and reliability.
- **Unipolar ReRAM:** Uses a single polarity of voltage for switching, offering simpler control and potentially lower power consumption.



Resistive Switching Memory Devices (ReRAM)

- The focus of research on developing memory technologies that overcome current limitations, offering faster speeds, higher endurance, and lower power usage have led to the newer emerging class of memory devices such as ReRAM, PCRAM, MRAM.
- Resistive Random-Access Memory (ReRAM) is a non-volatile memory technology that stores data by changing the resistance of a active layer that can be any insulator or semi-conductor.
- Data is written by applying a voltage that alters the resistance, and the data is retained even when power is off.



Zoom Toplantı - SESSION 3 HALL 1

emre ciftci ekran görüntüsü yapıyor. Seçenekleri Görüntüle

Uğur Köllü emre ciftci Şakir yazman Sezer Morkavuk Mehmet ŞAHBAZ Barkın Bakır

Otomatik Kaydet Otomatik Kaydet SUN... bu bilgisayar konu... Emre ÇİFTÇİ

Dosya Giriş Ekle Çiz Tasarım Geçişler Animasyon Slayt Göz Kaydet Gözden Geçir Görünür Yardım Acrobat

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Pano Adobe Acrobat Ses Eklentiler

7 8 9 10

Not eklemek için tıklayın

İngilizce (Birleşik Krallık) Notlar Görüntü Ayarları 25%

Ses Aç Videoyu Durdur Katılımcılar Sohbet Ekranı Paylaş Kayıt Duraklat/Durdur Alt Yazıları Göster Arsa Odaları Reaksiyonlar Uygulamalar Beyaz Tahtalar Oturandan Çık

Yıl	Kaplanabilir Alan (m ²)	2019 Yılı Başlangıç Alanı (m ²)	2020 Yılı Başlangıç Alanı (m ²)	2021 Yılı Başlangıç Alanı (m ²)	2022 Yılı Başlangıç Alanı (m ²)
1	100	100	100	100	100
2	100	100	100	100	100
3	100	100	100	100	100
4	100	100	100	100	100
5	100	100	100	100	100
6	100	100	100	100	100
7	100	100	100	100	100
8	100	100	100	100	100
9	100	100	100	100	100
10	100	100	100	100	100

THE MISWAK PLANT

The miswak plant, scientifically known as *Salvadora persica*, is a small, evergreen tree or shrub native to the Middle East, Africa, and India. It is often referred to as the "toothbrush tree" because its branches are traditionally used as natural toothbrushes, known as miswak.

Miswak has been used for oral hygiene for more than a thousand years, especially in Islamic cultures. The branches contain natural antibacterial properties that help control dental plaque and promote oral health. Additionally, the leaves, flowers, and fruits of the plant have a variety of uses in traditional medicine and as food.



The objectives of the study are as follows;

- i) Produce a model as the basic form of the miswak wooden handle.