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# Appendices

## Media and chemical composition

### Bushnell and Haas (BH) Agar

<b>Ingredients</b>	<b>gm/L</b>
Magnesium sulphate	0.2
Calcium chloride anhydrous	0.02
Potassium dihydrogen phosphate	1.0
Dipotassium hydrogen phosphate	1.0
Ammonium nitrate	1.0
Ferric chloride	0.05
Agar	20.0
Final pH (at 25°C)	7.0 ± 0.2

### Nutrient Agar

<b>Ingredients</b>	<b>g/L</b>
Peptone	5.0
Sodium chloride	5.0
HM peptone B (equivalent to beef extract)	1.5
Yeast extract	1.5
Agar	15
Final pH (at 25°C)	7.4 ± 0.2

### **Blood Agar base No. 2**

<b>Ingredients</b>	<b>g/L</b>
Proteose peptone	15.0
HL extract (Equivalent to liver extract)	2.5
Yeast extract	5.0
Sodium chloride	5.0
Agar	15.0
Final pH (at 25°C)	7.4 ± 0.2

### **Protein reagent for Lowry's method of protein estimation**

<b>Reagent</b>	<b>Composition</b>
Reagent A	2% Na <sub>2</sub> CO <sub>3</sub> in 0.1 N NaOH
Reagent B	0.5% CuSO <sub>4</sub> in 1% NaK tartarate
Reagent C	49ml of Reagent A + 1ml of Reagent B

### **DNS reagent for alpha amylase estimation**

<b>Ingredients</b>	<b>Amount/50 mL</b>
DNS	1 g
Sodium potassium tartarate tetrahydrate	30 g
2N NaOH	20 mL
Final volume	Adjust the final volume to 100 mL using distilled water

### Phosphate buffered saline (PBS)

<b>Ingredients</b>	<b>g/100 mL</b>
Sodium chloride	0.8
Potassium chloride	0.02
Disodium hydrogen phosphate	0.144
Potassium dihydrogen phosphate	0.0245

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## List of publications

1. **Das I**, Sonowal A, Gogoi B, Sharma B, Patowary K, and Borah D\* (2023): *Citrus maxima* (Burm.) Merr. fruit juice and peel extract mediated synthesis of silver nanoparticles (Ag NPs) and their applications as antimicrobial agents and plant growth enhancers; Kuwait Journal of Science (<https://doi.org/10.48129/kjs.19889>) (Impact factor: 1.4; hosted by Elsevier LLC).
2. **Das I**, Gogoi B, Sharma B, Borah D\* (2022): Role of metal-nanoparticles in farming practices: an insight; 3Biotech. 12: 294. <https://doi.org/10.1007/s13205-022-03361-6> (Impact factor: 2.893; hosted by Springer LLC).
3. Gogoi B., **Das I.**, Begum S., Dutta G., Kumar R., and Borah D\* (2023): Microbes and their genes involved in bioremediation of petroleum hydrocarbon. In Inamuddin (eds) Microbial Bioremediation. **Bentham Sciences (UAE)**, DOI: 10.2174/9789815123494123010011. ISBN: 978-981-5123-50-0 (Print), ISBN: 978-981-5123-49-4 (Online).
4. **Das I**, Bharali P, Gogoi P, Borah A, Sharma B, Borah D\*: Microbial biosurfactant mediated synthesis of silver nanoparticles (Ag NPs) and exploring its role in enhancing the seed germination; Biotechnology and Genetic Engineering Reviews (Impact factor: 4.2; hosted by Taylor & Francis) (Revision Submitted).

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## List of conferences

1. Paper entitled “*Bio-inspired synthesis of silver nanoparticles and its application in enhanced seed germination*” was presented in the “**International Conference on Recent advances in Materials Chemistry and Catalysis-RAMCC 2023**”, hosted by Dibrugarh University during March 1<sup>st</sup> – 3<sup>rd</sup>, 2023.
2. Paper entitled “*Bacterial biosurfactant mediated Silver Nanoparticles (Ag NPs) for enhanced seed germination*” was presented in the “**2<sup>nd</sup> International Conference on Plant Physiology and Biotechnology**”, hosted by Lovely Professional University during April 20–21<sup>st</sup>, 2023.

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