## **Optical Waveguides: Theory and Implementation**

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#### A special thanks to Professor Maysam Chamanzar

#### **Abstract**

Replace this with a succint summary of our work. Aim for 100 words

#### 1 Introductory Concepts and Motivations

Discuss introductory concepts here, something like motivations works well too

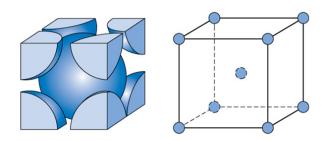


Figure 1. BCC Unit Cell structure, with an atom at the center of the "body" of the cell. Adapted from [1].

#### 2 Historical Contextualizations

Include timeline diagrams and discuss some important context details here.

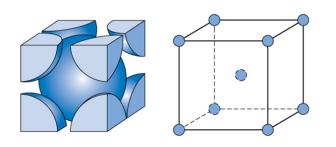


Figure 2. BCC Unit Cell structure, with an atom at the center of the "body" of the cell. Adapted from [1].

#### 3 Propagation of Light

Here we discuss EM mechanisms. Start fundamental and work our way up

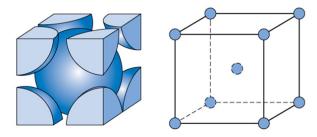


Figure 3. BCC Unit Cell structure, with an atom at the center of the "body" of the cell. Adapted from [1].

#### 4 Electromagnetic Mechanisms

More speciffc here, add TIR and add diagrams and math

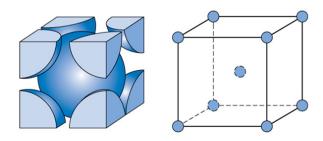


Figure 4. BCC Unit Cell structure, with an atom at the center of the "body" of the cell. Adapted from [1].

#### 5 System Integration

Transitions into some more implementation details that bleeds into state of art discussion

Anirudh: you can decide how you want to organize this

#### 6 Evaluation of the State of the Art

PIC discussion, materials perspective, etc.

# 7 Concluding Thoughts and Ideas for the Future

self explanatory

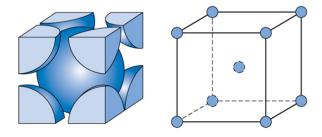


Figure 5. BCC Unit Cell structure, with an atom at the center of the "body" of the cell. Adapted from [1].

### 8 Acknowledgements

bibliography is very important (references section needs to be modified in example.bib)

#### References

[1] W. D. Callister and D. G. Rethwisch, Fundamentals of Materials Science and Engineering: An Integrated Approach, 5th Edition. John Wiley and Sons, 2001.